

Economic Developments and the Nature of Settlement in the Towns and Countryside of Syria-Palestine, ca. 565–800

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FEW HISTORIANS OR ARCHAEOLOGISTS would admit that any consensus has been reached on understanding the nature of economic conditions in Syria-Palestine (Arab *Bilād al-Shām*; fig. 1) during the decades leading up to the Islamic conquest, or in the century and a half immediately following. Until recently the spread of Islam (630s) and the subsequent founding of the Umayyad caliphate based in Damascus (661) were seen as precipitating a long period of decline in industry and trade, both within Syria-Palestine and inter-regionally. The seventh and eighth centuries were typified, it has often been argued, by the impoverishment and eventual abandonment of many sites, urban and rural, which had flourished in the previous centuries. The evidence from which such judgments were formed mostly relied upon architectural evidence or, more specifically, architecture dated by dedicatory inscriptions, and not the archaeological investigation of the structures. Short, unidirectional site histories of decline and desertion were constructed and attributed to various causes, either singularly or collectively: economic dislocations, political apathy, religious antagonism, warfare, or natural disasters such as disease, earthquakes, and climate change resulting in population decrease. Invoked as a terminal cause was the transfer of the Muslim world's epicenter eastward to Iraq after the overthrow of the Umayyads (750), which resulted in political marginalization, crippling economic stagnation, and decline.¹

In more recent analyses, the emphasis has shifted to a consideration of economic conditions before the Islamic expansion, in addition to those after it. Archaeology has been widely used to substantiate the argument that most towns, with the exception of Jerusalem and Caesarea, offered little or no resistance to an expanding Islamic entity because of the greatly weakened condition of Syria-Palestine—politically, militarily, and economically—at the start of the seventh century. Structurally and socially, the reasoning went, Syria-Palestine was already “medieval” before Islam (couched, in part, in the “*polis* to *madīnah*” hypothesis).²

Doubting the sufficiency of these explanations, especially given the dearth of verifiable evidence until recently, this paper seeks to elucidate developments in the rural and urban economy of Syria-Palestine by a new analysis of an ever-widening body of archaeological data on production, distribution, and trade in goods during the seventh and eighth centuries. This study will consider both urban and

1 See the discussion, and questioning, of these views in J. Magness, *The Archaeology of the Early Islamic Settlement in Palestine* (Winona Lake, 2003), 1–2; D. Whitcomb, “Hesban, Amman, and Abbasid Archaeology in Jordan,” in *The Archaeology of Jordan and Beyond: Essays in Honor of James A. Sauer*, ed. L. E. Stager, J. A. Greene, and M. D. Coogan (Winona Lake, 2000), 505–15.

2 Notably H. Kennedy, “From *Polis* to *Madina*: Urban Change in Late Antique and Early Islamic Syria,” *Past & Present* 106 (1985): 3–27. Also C. Morrisson and J.-P. Sodini, “The Sixth-Century Economy,” in *The Economic History of Byzantium, from the Seventh through the Fifteenth Century*, ed. A. Laiou (Washington D.C., 2002), 1: 171–220, esp. 193, 195, 212, 220. Recently Michael Morony has argued in an important article for a general retraction in the Mediterranean economy during the sixth century, but for growth of the Sasanid economy at the same time based on new labor and exploitation strategies, with these Sasanid trends providing the impetus for improvements in the early Islamic period (see M. G. Morony, “Economic Boundaries? Late Antiquity and Early Islam,” *JESHO* 47 [2004]: 166–94, esp. 178). At issue here is the extent of the sixth-century decline in Syria-Palestine, not later developments (which fit comfortably with the arguments put forward in this paper), although Morony does suggest that the south of Syria-Palestine fared better than other Mediterranean regions, with prosperity continuing to some degree into early Islamic times (*ibid.*, 174–75).

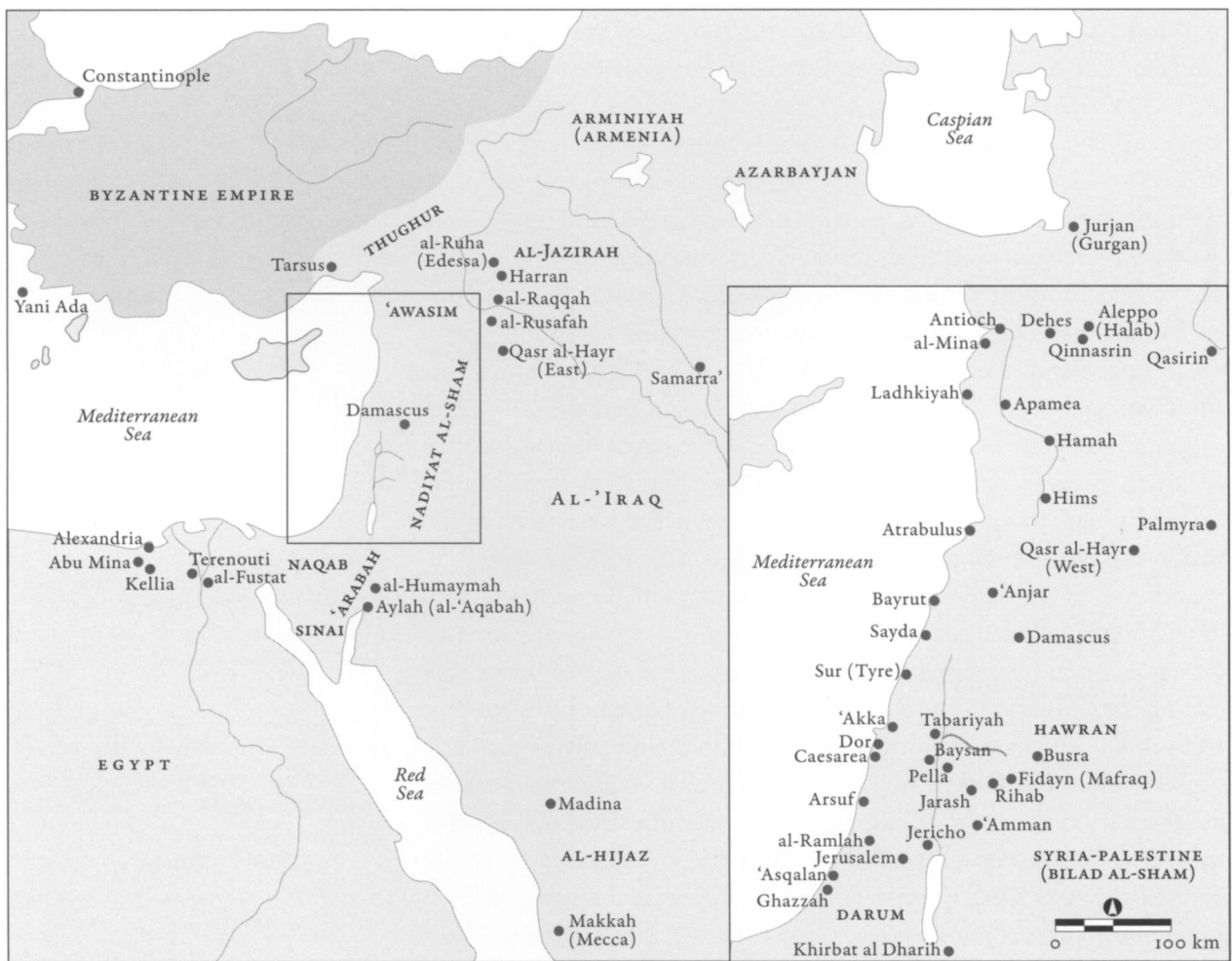


Fig. 1 The east Mediterranean in the early eighth century, showing principal sites mentioned in the text

rural economies and the developments that occurred in interregional exchange during the period. The extent to which these economic activities were reflected in changing settlement activity in the countryside is especially illuminating, providing significant insights into the rural economy during the transition from late antiquity to early Islamic times. The result of ongoing work, this paper is of necessity selective in both scope and subject matter, and much further research is required before a more comprehensive assessment can be offered.

The categories of archaeological evidence accessed in this study are varied, but not all types are available for every time period. The material assignable to the seventh century has suffered from a number of problems, mostly related to chronology, which has falsely created a more “obscure” century archaeologically. Fortunately, recent research has started to plug with great success the many gaps of a couple of decades ago, especially in the field of numismatics. Coins remain one of the primary dating tools in archaeology, and the ongoing refinement of coin series has greatly improved the reliability of ceramic chronologies. Previously broad, and unreliable, pottery dating

margins have been narrowed chronologically and typologically, and specific seventh-century ceramic types have been recognized, some previously seen as only current in the sixth century or earlier. Clearly such refinements have enormous implications for site dating and histories, and what appeared as a near-empty century twenty years ago is no longer vacant.

Compared to the seventh century, the evidence for economic activity in the eighth is almost overwhelming, and the greater availability of data will require some selection of material. Although more abundant, this material comes with two main limitations: it was often poorly excavated, and the publication of “late” levels has been neglected by many projects more interested in revealing biblical history or the perceived greatness of Classical remains. Although the situation has changed dramatically in recent years, the legacy of earlier shortcomings remains.

The Seventh Century

The first decades of the seventh century were some of the more politically tumultuous in Syria-Palestine. The passage of armies in conquest and counter-conquest, and a series of natural calamities, could have combined to weaken and bring to a prompt end production and commerce in towns and the countryside, but archaeologically the evidence suggests only short-term dislocations within a period of longer-term economic continuity.

Coinage: A Monetary Economy

The coin evidence is especially revealing on economic continuities and discontinuities. The first and most important point to note is the stubborn persistence of a monetary economy in Syria-Palestine during the seventh century. An almost incomprehensible array of Byzantine, pseudo-Byzantine, Umayyad Imperial, and Standing Caliph series in copper and, more rarely, gold circulated widely.³ The first coppers (pseudo-Byzantine) were informal, or locally authorized, productions issued in the late 650s to 660s or 670s to meet the demand of the marketplace for small change. Their dependence, both in size and imagery, on the issues of Constans II (641–668) and, much less so, Constantine IV (668–685) would tend to lock in

3 See recently, and for extensive bibliography, L. Ilisch, *Palästina IVA. Bilād aš-Šām*, vol. 1 of *Sylloge Numorum Arabicorum Tübingen* (Tübingen, 1993); L. Ilisch, “Islamic Numismatics,” in *A Survey of Numismatic Research, 1996–2001*, ed. C. Alfaro and A. Burnett (Madrid, 2003), 637–

61; S. Album and T. Goodwin, *Sylloge of Islamic Coins in the Ashmolean*, vol. 1, *The Pre-reform Coinage of the Early Islamic Period* (Oxford, 2002); C. Foss, “The Coinage of the First Century of Islam (review of Stephen Album and Tony Goodwin, *Sylloge of Islamic Coins in the Ashmolean Museum*,

vol. 1: *The Pre-Reform Coinage of the Early Islamic Period* (Ashmolean Museum, Oxford 2002)),” *JRA* 17, 2 (2004): 748–60. On seventh-century Byzantine parallels, see C. Morrisson, “Byzantine Money: Its Production and Circulation,” in Laiou, *Economic History*, 3, 5: 909–66.

a date no later than the 670s, but conceivably earlier.⁴ Hoards and coins from excavations indicate that the issues of Constans II were the last Byzantine issues that circulated in any number, and then predominantly before about 660.⁵ How Byzantine coinage entered Syria-Palestine in the mid-seventh century is not at all clear. Supply may have been informal or sent as official shipments, or both,⁶ yet the presence of these coins shows a degree of cross-border trade not yet identified in other types of material culture. Also unclear is why the supply of Byzantine issues stopped in 658–59, but it is hard to escape the conclusion that the foundation of the Umayyad caliphate was related in some way. However, as imported coinage failed to meet market needs, the pseudo-Byzantine series was produced to meet the gap between supply and demand.

Through their size, weight, and imagery, the Umayyad Imperial Image coin types (dated by Foss between 660 and 680, and Goodwin between 670 and 690) show a much greater attempt at central coordination, at least at the provincial level.⁷ Production similarities between certain mints reflect the known *ajnad* (military provincial) structure preserved in written sources of the ninth century, demonstrating the formal functioning of an Islamic administrative system for Syria-Palestine no later than the 670s. This is quite clear from a large-module copper showing two seated imperial figures based on an issue of Justin II and Sophia (565–578) minted in Nikomedia, which circulated in great numbers in southern Syria-Palestine (fig. 2).⁸ Issues from Baysan (Scythopolis) and Jerash are well known, yet Jerash



Fig. 2 Copper alloy coin with the Gerasa mint belonging to the Umayyad Imperial Image series (ca. 660–680), overstamped in Arabic with the word *tayyib* “good,” on the obverse (A. Uscatescu and T. Marot, “The Ancient Macellum of Gerasa in the Late Byzantine and Early Islamic Periods: The Archaeological Evidence,” in *Proceedings of the Second International Congress on the Archaeology of the Ancient Near East, Copenhagen 2000*, ed. I. Thuesen [Winona Lake, 2008], 2: fig. 10.9)

4 Album and Goodwin, *Sylloge of Islamic Coins*, 1: 104–7; see also Foss, “Coinage,” 760.

5 For example, the gold hoards of Nikertai, near Afamia/Apamea (C. Morrisson, “Le trésor byzantin de Nikertai,” *Revue Belge de Numismatique et de Sigillographie* 118 [1972]: 29–91) and Awarta near Nablus (A. Dajani, “A Hoard of Byzantine Gold Coins from Awarta, Nablus,” *AAJord* 1 [1951]: 41–43), and more recently the Khirbat Qab hoard from Galilee (D. Syon, “A Hoard of Byzantine Solidi from Hurvat Kab,” *INJ* 14 [2000–2002]: 211–23, plates 23–26). For other material, see C. Morrisson, “La monnaie en Syrie byzantine,” in *Archéologie et histoire de la Syrie*, vol. 2, *La Syrie de l’époque Achéménide à l’avènement de l’Islam*, ed. J.-M. Dentzer and W. Orthmann (Saarbrücken, 1989), 191–204, at 198–99; and G. Bijovsky, “A Hoard of Byzantine Solidi from Bet She’an in the

Umayyad Period,” *RN* 158 (2002): 161–227, but with 7.32% of Constantine IV, although all before 681. For a discussion of the hoard material, see recently Album and Goodwin, *Sylloge of Islamic Coins*, 1: 104, 106; M. Phillips and T. Goodwin, “A Seventh-Century Syrian Hoard of Byzantine and Imitative Copper Coins,” *NC* 157 (1997): 61–87.

6 Phillips and Goodwin suggest that the Byzantines deliberately ended the copper supply (Phillips and Goodwin, “Seventh-Century Syrian Hoard,” 81–83); Foss thinks not, while Michael Bates proposes a local imitative mint (Foss, “Coinage,” 754).

7 Foss, “Coinage,” 760; Album and Goodwin, *Sylloge of Islamic Coins*, 1: 81–91. The series starts out highly standardized with standing figures type, common to the provincial capitals of Hims, Damascus, Tabariyah, and Ludd, and also the almost-capital of Jerusalem (for which see especially

A. Elad, *Medieval Jerusalem and Islamic Worship: Holy Places, Ceremonies, Pilgrimage* [Leiden, 1995]). Foss’s date of 660 for the start of the series makes considerable sense in this context. Archaeologically and historically this series could be considered the most significant prereform coinage, and much more research needs to be done, especially on distribution, for which the publication of excavation finds is most crucial.

8 In addition to Album and Goodwin, *Sylloge*, see N. Amitai-Preiss, A. Berman, and S. Qedar, “The Coinage of Scythopolis-Baysan and Gerasa-Jerash,” *INJ* 13 (1994–99): 133–51, plates 17–22; M. L. Bates and F. L. Kovacs, “A Hoard of Large Byzantine and Arab-Byzantine Coppers,” *NC* 156 (1996): 165–73; A. Naghawi, “Umayyad Filises [sic] Minted at Jerash,” in *Jerash Archaeological Project 2 (1984–1988)*, ed. F. Zayadine (Paris, 1989), 2: 219–22.

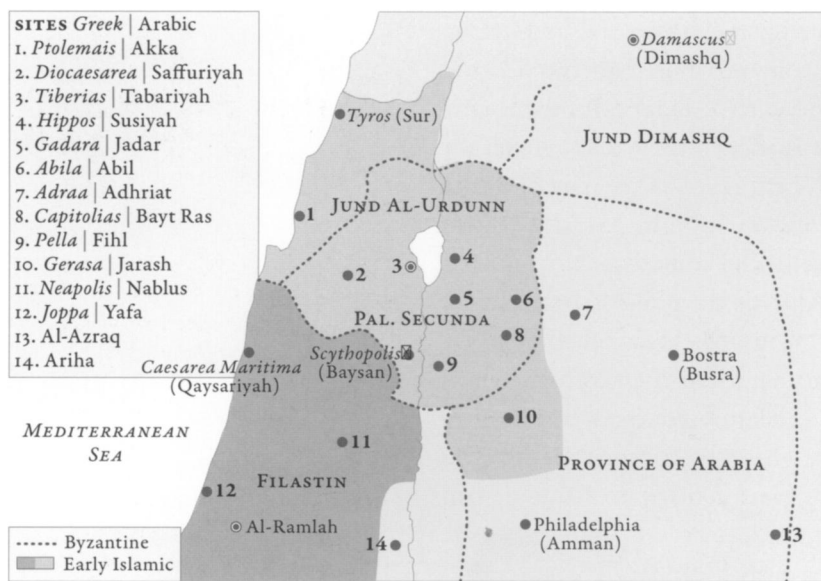


Fig. 3 Map showing the rearrangement of provincial borders with the formation of the ajnad

Fig. 4 A rare Double Standing Caliph copper recovered at Jerash, probably reflecting the province's traditional preference for the large module type of Justin II and Sophia

before the Islamic expansion belonged to the Province of Arabia, and only with the formation of the Jund al-Urdunn did the town become joined administratively with Baysan (fig. 3). The recent identification of Abila as a probable third mint producing this type further illustrates the provincial basis for the issuing of the Imperial Image style.⁹ Nonetheless, the other coinage of the Jund al-Urdunn displays major stylistic differences, especially the issues of the capital Tabariyah and an unidentified mint in north Jordan (the so-called pseudo-Damascus mint), so other factors were clearly at play.

With the Standing Caliph series (690s), the intention of producing a standardized and centralized coinage in Syria-Palestine becomes apparent, from both an iconographic and a metrological perspective.¹⁰ The Jund al-Urdunn remained outside this unified approach, even if the paradoxical Double Standing Caliph coin type is to be associated with this province, which seems most likely (fig. 4). Otherwise, variations within a common series were stylistic, in line with the prevailing provincial structure. This type presaged the coinage reforms of 'Abd al-Malik at the end of the seventh century, reflecting both the continuing strength of the monetary economy and provincial preferences that had marked the whole of the seventh century.

Nevertheless, outside of this very positive account of the monetary economy of the seventh century, a number of hoards do suggest

⁹ A. Oddy, "A New Proto-Umayyad Mint in Syria?," *NC* 64 (2004): 236–40, plates 26–27. Oddy notes that the identification of Abila as a new mint still fails to account for all the unidentified coins in this

type, suggesting that other mints may have also operated briefly in the Jund al-Urdunn.

¹⁰ Album and Goodwin, *Sylloge of Islamic Coins*, 1: 91–99.

that the periodic uncertainties of the age did have some impact on the economy. Quite a few hoards can be attributed to the Sasanid invasion or events immediately prior,¹¹ with a smaller number being concealed in the face of the Muslim advance in the 630s.¹² Generally the greater number of early-seventh-century hoards may indicate a time of greater insecurity and, more revealingly, less subsequent recovery of buried wealth. A clear rise in the concealment of hoards, and their non-recovery, is discernible during the power struggles over the caliphate in the 680s.¹³ Overall, the Sasanid invasion and the succession disputes in the 680s appear to have had the most impact, if raw numbers are any indication. The Islamic conquest resulted in comparatively few unclaimed hoards, while the composition of gold hoards concealed later in the century reveals no appreciable disruption in supply at the time of the conquest.

The circulation of coinage in the seventh century is recorded in the coins recovered during the course of archaeological work in Syria-Palestine.¹⁴ Imported Byzantine gold was distributed widely, if the hoards mentioned previously are any guide. Perhaps more indicative of local commerce are the copper issues, both imported and local, even if the evidence remains sketchy. At Jerash there were few Constans II coppers (four specimens), but the preference for the Justin II and Sophia large-module folles in the region may be the explanation.

11 Y. Alayyan, "A Brief Study of Gold Coins found in Abdun," *AAJord* 42 (1998): 39–53, latest coin Phocas 607–10; D. T. Ariel, "A Hoard of Byzantine Folles from Qazrin," *Atiqot* 29 (1996): 69–76, latest coin 607–8; D. C. Baramki, "A Hoard of Byzantine Coins," *QDAP* 8, no. 1 (1938): 81–85, latest coin 611–12; G. M. Fitzgerald, *A Sixth Century Monastery at Beth-Shan (Scythopolis)* (Philadelphia, 1939), gold; C. Lambert, "A Hoard of Byzantine Coins," *QDAP* 1 (1932): 55–68, latest coin 611–12; S. J. Mansfield, "Coin Hoards 1995: Near East, 67. Unknown (Near East), 1994 or Before," *NC* 155 (1995): 348–54, latest coin 602; S. J. Mansfield, "Coin Hoards 1995: Near East, 68. Unknown (Near East), 1993 or before," *NC* 155 (1995): 354–58, latest coin 608–9; W. E. Metcalf, "Three Seventh-century Byzantine Gold Hoards," *ANSMN* 25 (1980): 87–108, Hoard 1 (gold), latest coin 607–10; R. Naismith, "A Hoard of Byzantine Copper Coins Ending with the Last Year of Maurice," *NC* 164 (2004): 296–99, latest coin 602; L. Y. Rachmani, "Two Hoards of Byzantine Coins and a Roman Charm from Khirbet Deir

Dassawi," *INJ* 2 (1964): 19–23, latest coin 605–6; and possibly L. Harding, "Recent Work on the Jerash Forum," *PEQ* 81 (1949): 12–20, latest coin unspecified Maurice Tiberius (582–602).

12 G. E. Bates, "A Byzantine Hoard from Coele Syria," *ANSMN* 14 (1968): 67–109; however, some of the hoards listed in the previous note could date to the 630s, given the short time period between the Sasanid conquest and the Islamic expansion into Syria-Palestine and the seemingly limited supply of new money during the Sasanid occupation and the few years after Herakleios's recovery of the region.

13 Dajani, "Hoard of Byzantine Gold" (above, note 3), latest coin 668; Metcalf, "Three Seventh-century Hoards," Hoard 2, latest coin 674–81 and an imitation of a Herakleios and Herakleios Constantine solidus; Morrisson, "Le trésor byzantin" (above, n. 5), latest coin 674–81; and perhaps Syon, "A Hoard of Solidi" (above, n. 5), latest coin 661–63 and who prefers a concealment date around 665 based on wear. Other hoards: Morrisson, "La monnaie en Syrie

byzantine," 198–99; Bijovsky, "A Hoard of Byzantine Solidi," 180–82, but more likely buried because of political unrest than "fear of confiscation by the Arabs" (185). One should also note the preponderance of gold hoards in the later seventh century, perhaps reflecting the concealment of these coins as wealth rather than currency; thus in Metcalf, "Three Seventh-century Hoards," Hoard 3, with the latest coin of 685–95 from the reign of Justinian II, seems to represent the burial of obsolete coinage for the value of the gold.

14 C. Foss ("The Coinage of Syria in the Seventh Century: The Evidence of Excavations," *INJ* 13 [1994–99]: 119–32) grapples with some of the issues; see also A. Walmsley, "Production, Exchange and Regional Trade in the Islamic East Mediterranean: Old Structures, New Systems?," in *The Long Eighth Century: Production, Distribution and Demand*, ed. I. L. Hansen and C. Wickham (Leiden, 2000), 265–343, at 334–37. The unpublished coins from the large-scale Scythopolis/Baysan excavations will make an important contribution when they appear.

The pre-reform Islamic coinage is overwhelmingly local (minted in Baysan and Jerash), accounting for 90 percent of the total (fifty-five of sixty-one specimens), the rest originating from Damascus (five) and Amman (one).¹⁵ Again, local preferences might be the cause, but surely such an inward-looking monetary policy would have dampened trade opportunities outside of the immediate area. A seventh-century cultural conservatism in this region can be viewed in other areas of material culture, as will be seen later in this paper.

In more northern reaches, the coins recovered from the excavation of houses at Apamea reveal monetary continuity on a significant scale in the seventh century.¹⁶ Coin statistics from the Maison aux consoles reveal a steady supply of copper coin throughout the century, including types attributable to the militarily volatile period 613–638 (six specimens), with particularly high numbers of coins attributed to Constans II (sixteen) and imitative issues (eight). Excavations at Antioch similarly produced numerous Constans II and imitative types (seventy and eighteen respectively).¹⁷ Likewise, coins from excavations in the Amuq plain recovered both official and imitative Constans II coins, with the former again in the majority.¹⁸ Equally indicative of seventh-century circulation in the north is the published coin evidence from soundings in house units at Dêhès.¹⁹ Coinage of the sixth century is remarkably rare (from Justin I and Maurice Tiberius, only five coins, with nothing in between!), but the seventh century is prolific by comparison (thirty-two coins, including fourteen of Constans II). The pre-reform Islamic coins are anonymous imitations of Constans II (eight specimens), except one Standing Caliph type from Qinnasrin. The disproportionately large number of seventh-century coins may be a little difficult to explain, unless Dêhès was able to benefit financially (through trade or militarily?) from its proximity to the Byzantine border. Regardless, the monetary economy was very active at Dêhès in the seventh century.

Overall, one suspects that the coin evidence from these sites reflects reasonably accurately the economic environment of their districts, which varied between regions of Syria-Palestine, especially the north and the south.

¹⁵ Walmsley, "Production, Exchange and Trade," 333–36, presents the tabulated data.

¹⁶ J. C. Balty, "Monnaies byzantines des maisons d'Apamée: Étude comparative," in *Apamée de Syrie: Bilan des recherches archéologiques, 1973–1979. Aspects de l'architecture domestique d'Apamée: Actes du colloque tenu à Bruxelles les 29, 30 et 31 mai 1980*, ed. J. Balty (Brussels, 1984), 239–48 for the Byzantine material; A. Nègre,

"Monnaies orientales des maisons d'Apamée. Étude comparative," in *ibid.*, 249–59, for the early Islamic material.

¹⁷ Corrected figures taken from C. Foss, "Syria in Transition, A.D. 550–750: An Archaeological Approach," *DOP* 51 (1997): 189–269, at 195.

¹⁸ T. Vorderstrasse, "Coin Circulation in Some Syrian Villages (5th–11th Centuries)," in *Les villages dans l'Empire*

byzantin (IVe–XVe siècle), ed. J. Lefort, C. Morisson, and J.-P. Sodini (Paris, 2005), 495–510.

¹⁹ C. Morisson, "Dêhès. Campagnes I–III (1976–1978), Recherches sur l'habitat rural: Les monnaies," *Syria* 57 (1980): 267–87.



Fig. 5 View of the domestic quarter at the east end of the mound at Pella, Jordan

Material Culture: Recognizing Production and Trade in the Seventh Century

Tremendous strides have been made in the last few decades in identifying and correctly dating the material culture of Syria-Palestine in the seventh century. The implications of this advance will be considered in the next section on settlement profiles, but suffice it to say now that what was once an almost invisible century archaeologically has become much more visible and understandable historically. At this point, the intention will be to describe the major improvements in the chronology of some of the more important ceramic groups, and especially what new information this material holds for regional production and trade in the century.

Usefully or not, ceramics and coinage have traditionally dominated Middle Eastern archaeology, and when pottery is misdated voids are created in the archaeological record that reflect not history, but our understanding of it. Into such an archaeological “black hole” fell much of the pottery of the seventh century, and only recently have improvements in knowledge been perceptible. A much tighter control over site stratigraphy for the later periods (late antiquity and the early Islamic periods) has produced excellent corpora of seventh-century transitional material and especially diagnostic ceramic groups datable to acceptable time spans of a generation or so.²⁰

20 The reckless discarding of materials from post-Classical levels in the Middle East is well acknowledged, whether the sites were being investigated for their Graeco-Roman (e.g., Jerash) or biblical (e.g., the *tall* of Baysan-Beth Shan) periods.

Foremost in the compilation of a seventh-century ceramic assemblage for southern Syria-Palestine has been the work of Pamela Watson at Pella/Fihl.²¹ Excavations within a domestic quarter on the main archaeological mound during the 1980s produced a diverse range of material from good contexts datable to the sixth/seventh century, ending with the widespread damage of structures in an earthquake in 659 or 660 (fig. 5). The ceramics display an unbroken continuity for a century and a half until the earthquake,²² with the seventh-century corpus dominated by local products from Jerash and Baysan, but also material from more distant realms, notably Egypt. The pottery from Watson's Phase 5 (initially dated ca. 600–640, later up to 659–60) is of primary interest here, although the preceding Phase 4 probably spanned into the early seventh century.²³ Phase 5 ceramics came from particularly good deposits with little rubbish survival, making the corpus unusually clean and representative (fig. 6). The material shows undoubted continuity from Phase 4, but with perceptible developments in shape, frequency of types, and decorative styles.²⁴ These changes appear unrelated to any historical event and would seem, rather, to represent a standard progression of material culture in response to changing human preferences and abilities, both artisan and consumer.

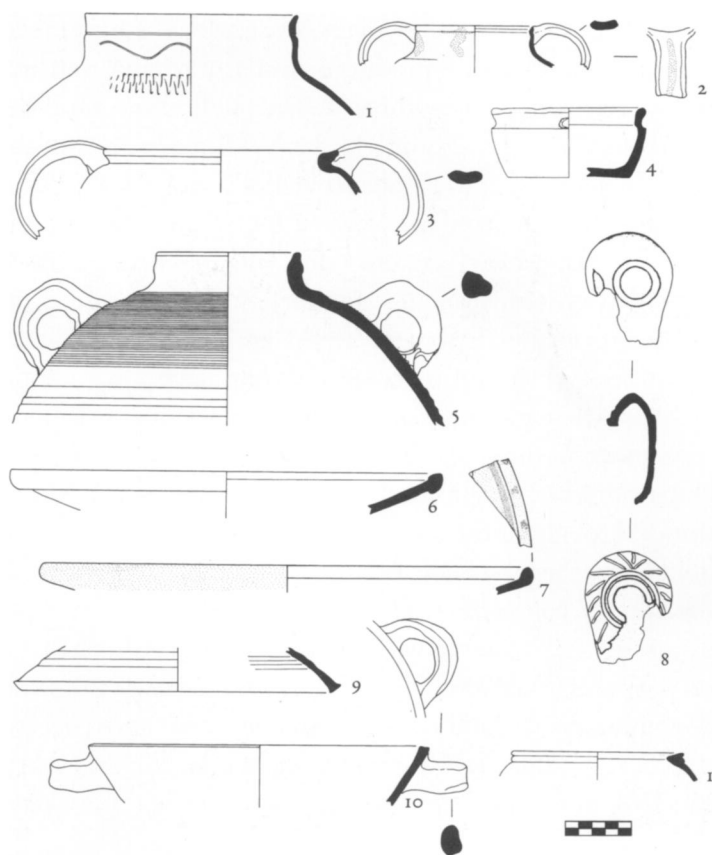


Fig. 6 Seventh-century domestic wares from the housing at Pella (from P. Watson, "The Byzantine Period," plate 115)

21 See especially P. M. Watson, "Ceramic Evidence for Egyptian Links with Northern Jordan in the 6th–8th Centuries AD," in *Trade, Contact, and the Movement of Peoples in the Eastern Mediterranean: Studies in Honour of J. Basil Hennessy*, ed. S. Bourke and J.-P. Descoeudres (Sydney, 1995), 303–20; P. Watson, "The Byzantine Period: Byzantine Domestic Occupation in Areas III and IV," in *Pella in Jordan 2: The Second Interim Report of the Joint University of Sydney and the College of Wooster Excavations at Pella 1982–1985*, ed. A. W. McNicoll, J. Hanbury-Tenison, et al. (Sydney, 1992), 163–81; P. M. Watson, "Change in Foreign and Regional Economic

Links with Pella in the Seventh Century A.D.: The Ceramic Evidence," in *La Syrie de Byzance à l'Islam, VIIe–VIIIe siècles: Actes du colloque international Lyon*, ed. P. Canivet and J.-P. Rey-Coquais (Damascus, 1992), 233–48.

22 "There is clearly a strong continuity throughout: many types have a long life" (Watson, "Byzantine Domestic Occupation in Areas III and IV," 181).

23 Watson, "Change," 234, in which Phase 4 contains imports datable up to 660, and Watson proposes a possible corpus date to 620.

24 Specifically on Phase 5, Watson states: "While the pottery is closely related to the

material in Phase 4, Phase 5 reveals certain advances. New forms have appeared and there is a development in the metallic terracotta [name of fabric type] group: an increase in its relative quantity, and the introduction of incised decoration" (Watson, "Byzantine Period," 181). Also, "the trends at Pella ... reveal a basic continuity of traditions, overlaid by changes occurring in the early and mid-7th century. These changes, however, have their roots in the second half of the 6th century and cannot be considered abrupt" (Watson, "Change," 246).

In the later 1980s and 1990s, excavations at a number of other sites in Syria-Palestine produced similarly reliable and informative seventh-century pottery corpora. The publications on Dêhès, Jerash, Khirbat al-Dharih (south Jordan), Humaymah (south Jordan), Aqabah, Jerusalem, the Zohar and En Boqeq forts, Yoqne'am, and Ramat Hanadiv contain, to varying degrees of usefulness, distinct seventh-century material that with publication has filled and expanded a ceramic void.²⁵ A number of the diagnostic pottery types recovered during these excavations are of particular interest with regard to seventh-century trade and commerce.

A particularly informative group of pottery is an amphora type manufactured in the Gaza-Ascalon area of coastal southern Palestine, which begins perhaps as early as the first century and continues throughout the seventh and into the early eighth.²⁶ Consensus holds that the jars, made of a thick, gritty ware fired to a medium-dark brown color (Munsell color chart: 5YR 5/6), were meant for the export of Gaza's famous white wine, used for the Eucharist and medical purposes in addition to drinking. The latest, seventh-century form of amphora is tall and narrow compared with its predecessors, with a vertical shoulder, lacking a neck and with a narrow band of incised combing just below the attached handles (fig. 7.1). Conspicuously

opposite page

Fig. 7 1. Gaza amphora from the mid-seventh century levels at Pella (Watson, "Byzantine Domestic Occupation in Areas III and IV," plate 116.8); 2. The Terenouti amphora, found in good numbers in mid-eighth century deposits at Pella (A. Walmsley, "Chapter 8. The Umayyad Pottery and Its Antecedents," in *Pella in Jordan 1: An Interim Report on the Joint University of Sydney and the College of Wooster Excavations at Pella 1979–1981*, ed. A. McNicoll, R. H. Smith, and B. Hennessy [Canberra, 1982], plate 145.3); 3. Aqabah amphora, later seventh to eighth centuries (Whitcomb, *Ayla*, 24).

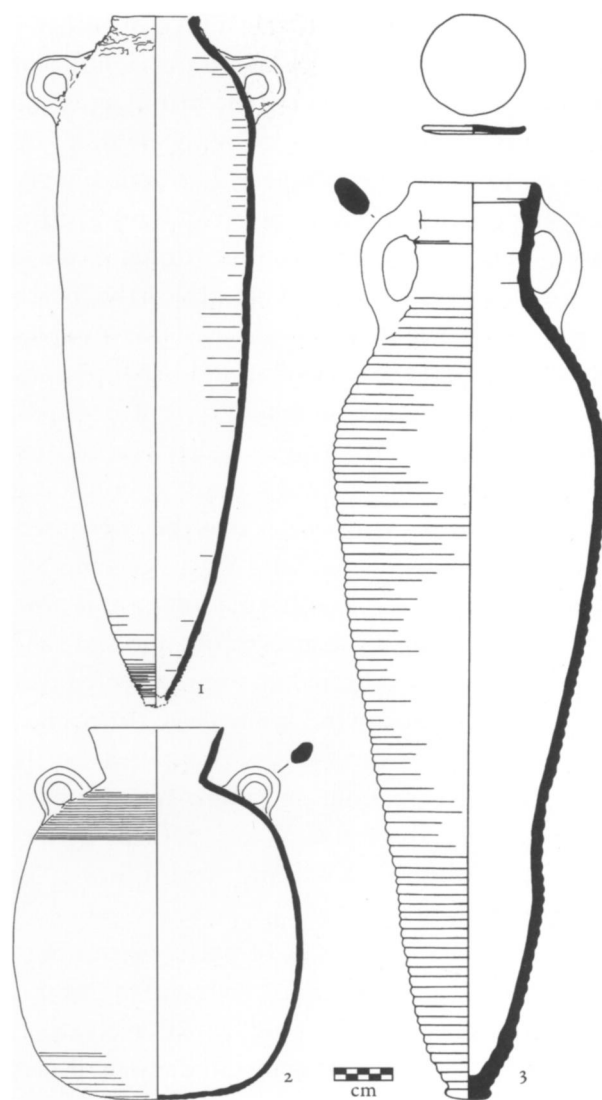
25 Jerash: see especially P. M. Watson, "Jerash Bowls: Study of a Provincial Group of Byzantine Decorated Fine Ware," in *Jerash Archaeological Project 2*, 223–53 (above, n. 3); A. Uscatescu, "Jerash Bowls and Other Related Local Wares from the Spanish Excavations at the Macellum of Gerasa (Jerash)," *AAJord* 39 (1995): 365–408; A. Uscatescu, *La Cerámica del Macellum de Gerasa (Yaraš, Jordania)* (Madrid, 1996), including "Jerash Bowls" (further below); Aqabah (Aylah): A. Melkawi, K. 'Amr, and D. S. Whitcomb, "The Excavation of Two Seventh Century Pottery Kilns at Aqaba," *AAJord* 38 (1994): 447–68; Jerusalem: J. Magness, *Jerusalem Ceramic Chronology, circa 200–800 CE* (Sheffield, 1993); Magness, "Chapter Eighteen: Late Roman and Byzantine Pottery," in *Jewish Quarter Excavations in the Old City of Jerusalem, Conducted by Nahman Avigad, 1969–1982*, vol. 2, *The Finds from Areas A, W, and X–2: Final Report*, ed. H. Geva (Jerusalem, 2000), 423–32; Zohar: R. P. Harper, *Upper Zohar: An Early Byzantine Fort in Palaestina Tertia. Final Report of Excavations in 1985–1986* (Oxford, 1995); En Boqeq: M. Gichon, *En Boqeq: Ausgrabungen in einer Oase am Toten*

Meer (Mainz am Rhein, 1993), with significant corrections in J. Magness, "Redating the Forts at Ein Boqeq, Upper Zohar, and Other Sites in SE Judaea, and the Implications for the Nature of the *Limes Palaestinae*," in *The Roman and Byzantine Near East*, vol. 2, *Some Recent Archaeological Research*, ed. J. H. Humphrey (Portsmouth, R.I., 1999), 189–206; Yoqne'am: Avissar in A. Ben-Tor, M. Avissar, and Y. Portugali, *Yoqne'am I. The Late Periods* (Jerusalem, 1996), 66–74; Ramat Hanadiv: R. Calderon, "Ramat Hanadiv Excavations, Chapter 3: Roman and Byzantine Pottery," in *Ramat Hanadiv Excavations: Final Report of the 1984–1998 Seasons*, ed. Y. Hirschfeld (Jerusalem, 2000), 119–65, especially for a sealed pit deposit of the seventh century; while for the other sites see the various articles in E. Villeneuve and P. M. Watson, eds., *La céramique byzantine et proto-islamique en Syrie-Jordanie (IVe–VIIIe siècles apr. J.-C.): Actes du colloque tenu à Amman les 3, 4 et 5 décembre 1994* (Beirut, 2001); and a general overview of ceramics in J.-P. Sodini and E. Villeneuve, "Le passage de la céramique Byzantine à la céramique Omeyyade," in Canivet and Coquais, *La Syrie de Byzance à l'Islam*, 195–218.

26 See M. Egloff, *Kellia: la poterie copte. Quatre siècles d'artisanat et d'échanges en Basse-Égypte* (Geneva, 1977), 3: 117; and the important newer study of G. Majcherek, "Gazan Amphorae: Typology Reconsidered," in *Hellenistic and Roman Pottery in the Eastern Mediterranean: Advances in Scientific Studies: Acts of the II Nieborów Pottery Workshop, Nieborów, 18–20 December 1993*, ed. H. Meyza and J. Młynarczyk (Warsaw, 1995), 163–78, with a full bibliography; and more generally B. Johnson and L. E. Stager, "Ashkelon: Wine Emporium of the Holy Land," in *Recent Excavations in Israel: A View to the West. Reports on Kabri, Nami, Migne-Ekron, Dor, and Ashkelon*, ed. S. Gitin (Dubuque, Iowa, 1995), 95–109, which includes information on recently identified amphora production sites near Gaza and Ascalon; also P. Fabian and Y. Goren, "A Byzantine Warehouse and Anchorage South of Ashqelon," *Atiqot* 42 (2001): 211–19.

found in the coin-dated 659–60 earthquake deposit at Pella, numerous at Caesarea, recovered in large numbers (135 specimens) from a pit at Horvat 'Aqav on the Carmel Range,²⁷ but less common at Jerash, this late type of Gaza amphora becomes far less widespread north of the Esdraelon-Yarmouk valley divide, suggesting that Caesarea and Dor were the northernmost ports for primary distribution. Farther afield, examples are also known from Kellia and Alexandria (Kom al-Dikka) in Egypt, and as far away as Marseilles.²⁸ However, the distribution of the sixth-century form is unquestionably wider—found from Britain to the Black Sea and Nubia. In basic terms, the current evidence suggests continued Mediterranean trade in Gaza wine during the seventh century but on a reduced scale—or at least trade using the Gaza amphorae; a smaller number of amphorae may not necessarily mean a decline in trade if other containers, such as skins, were being used.²⁹

Other ceramic evidence reveals that trade in commodities between Egypt (especially the delta) and southern Syria-Palestine took place on a significant scale in the seventh century.³⁰ Notable are the widespread occurrence of Abū Mīnā amphorae at sites, found in the 659–60 earthquake levels at Pella and reaching inland to Jerash; Egyptian Red Slip A from Aswan, with form J2 and M (late sixth to seventh century) at Pella, common at Baysan and Tabariyah but rare inland at Jerash; Egyptian Red Slip C (seventh century) at Caesarea, Pella, and Jerash; and Coptic Painted ware from middle Egypt, an uncommon export except to southern Syria-Palestine, with a mid-seventh-century specimen at Jerash. As in the sixth century, in the seventh century there seems to have been a thriving trade in goods of all types between Egypt and



27 Calderon, "Ramat Hanadiv Excavations, Chapter 3: Roman and Byzantine Pottery," 119–27, where both sixth- and seventh-century types occur together; we can assume a long life and frequent reuse for these vessels, which is confirmed by the Horvat 'Aqav discards.

28 Majcherek, "Gazan Amphorae," 169.

29 The preference for skins over amphorae to hold liquids (oil and wine especially) is a feature of Mediterranean

trade in the Middle Ages. See the important comments of S. Goitein, *A Mediterranean Society: The Jewish Communities of the Arab World as Portrayed in the Documents of the Cairo Geniza*, vol. 1, *Economic Foundations* (Berkeley, 1967), 333–34: "For the large scale overseas trade, skins were preferred." It should not be necessary to emphasize the perishable nature of skins and, as a result, their absence in the archaeological record.

30 See especially Watson, "Ceramic Evidence"; also recently J. Magness, "Late Roman and Early Islamic Pottery from Middle Egypt and Some Palestinian Connections (review of Donald M. Bailey, *Excavations at el-Ashmunein*, vol. 5, *Pottery, Lamps and Glass of the Late Roman and Early Arab Periods* [London, 1998])," *JRA* 13 (2000): 812–17.

southern Syria-Palestine that was little disturbed by the events of the age. Continuity of this trade into the eighth century is also demonstrable by another amphora type manufactured in the Nile delta at Terenouti,³¹ and found in good numbers at, for instance, Pella in the mid-eighth-century earthquake destruction level and at Kursi on the east shore of Lake Tiberias (fig. 7.2).³² It reached the Jordanian heights, being found in excavations on the Amman Citadel and nearby Umm al-Walid, for instance,³³ and recently farther north at Jerash.

Seaborne trade on the Red Sea in the seventh century is revealed in the discovery of an industrial potter's complex at Aylah manufacturing a local amphora type of large proportions (fig. 7.3).³⁴ The production at Aylah far exceeded local requirements, and the discovery of these amphorae at seventh- to ninth-century sites in south Arabia and Ethiopia indicates that they were used to repack the agricultural produce of southern Syria-Palestine for shipment on the Red Sea by boat. A major destination for this produce was the towns of the Hijaz, where the growth of large and suddenly wealthy elite groups would have created an unprecedented demand for imported products such as oil, wine, grain, dried fruits, and nuts.

The seventh century is also typified by the continuation of strong regional ceramic traditions, two of which are of particular interest: "Fine Byzantine Ware," perhaps better called Palestinian Fine Table Ware (PFTW), and "Jerash Bowls," named after the site of production.

PFTW is a major class of pottery spanning the sixth to ninth centuries.³⁵ The clay was finely levigated so that it could be very thinly thrown on a fast wheel to produce extremely elegant cups, bowls, jars, and jugs, perhaps imitating metallic vessels. The firing was very carefully controlled to produce a mellow light-orange to brownish-colored fabric. Decoration of the outside surfaces featured knife burnishing, a wavy line incised below the rim on cups, and cut strokes on jars and jugs in the sixth and seventh centuries. During the seventh century new shapes appeared, especially dishes and plates, perhaps in place of the increasingly unavailable Red Slip wares. PFTW was extensively distributed in Palestine and Jordan, with find sites centering on the north and central Jordan valley, the Jordanian mountain

31 P. Ballet, "Un atelier d'amphores Late Roman Amphora 5/6 à Kom Abou Billou (Égypte)," *Chronique d'Égypte* 69 (1994): 353–65.

32 V. Tzaferis, "The Excavations of Kursi-Gergesa," *Atiqot* 16 (1983): 5–18, but ceramics badly misdated.

33 G. L. Harding, "Excavations on the Citadel, Amman," *AAJord* 1 (1950): 7–14; M.-A. Haldimann, "Umm-el-Walid: Prolégomènes céramologiques," in Canivet and Rey-Coquais, *La Syrie de Byzance à l'Islam, VIIe–VIIIe siècles*, 229–31, at 231.

34 Melkawi, 'Amr, and Whitcomb, "The Excavation of Two Seventh Century Pottery Kilns at Aqaba."

35 This ceramic class is in need of a major study, but see M. Gichon, "Fine Byzantine Wares from the South of Israel," *PEQ* 106 (1974): 119–39; Magness, *Jerusalem Ceramic Chronology*, 166–71.

range (particularly in the north), the Palestinian hills, and the Naqab (Negev). While no workshops have been located, the Jerusalem area was probably the production center for PFTW, and from here appreciable quantities of PFTW were traded north and south for a distance of up to 120 km. Distribution was particularly marked to the northeast and southwest of Jerusalem along the well-traveled and increasingly important state-run route between Egypt and Damascus.

Jerash Bowls, the workshops for which have been discovered in the disused hippodrome, were local imitative versions of certain African Red Slip types, but usually bichrome painted with decorative patterns of iconic, mythical, and abstract designs or occasionally with an impressed stamp motif. The human and animal images show extraordinary variety, with bird, fish, feline, horse, deer, dog, boar, and so on depicted, and often resemble mosaic art (fig. 8).³⁶ Bands of abstract designs within lines were used to form central *tondi* and to decorate the outside edge of the plates. Inscriptions in Greek occasionally occur. Paint colors were white and a reddish-brown to purple. While dating the series is still difficult, the evidence from Pella and Jerash would support major production in the later sixth to seventh century; thereafter deep bowls with high walls and cups painted monochromatically in red abstract patterns replace the more open Jerash Bowls. The distribution of Jerash Bowls is concentrated in northern Jordan and the north Jordan valley, reaching up to 125 km away from the point of production. Like Palestinian Fine Table Ware, the distribution pattern of Jerash Bowls indicates that the maximum economic range of fine-quality ceramics in the seventh century was 100–150 km, after which the products of another region gained a competitive edge and the traded items became, in effect, too expensive.

Settlement: Urban Transformations and Rural Expansion

The fundamental advances made in understanding and interpreting the coinage and ceramics of seventh-century Syria-Palestine has opened up new possibilities of accurately reconstructing socioeconomic profiles in both urban and rural contexts that do not solely rely on epigraphic evidence. This work has only just begun, in part hampered by the slow pace of publication of excavation and survey projects. Nevertheless, recent analyses are beginning to demonstrate considerably more activity in the seventh century than previously recognized, including the continued construction of public buildings, mostly churches, and large domestic complexes. In general,



Fig. 8 Jerash bowls, decorated in red to reddish-brown on a white paint background

36 Uscatescu, “Jerash Bowls and Other Related Local Wares” (above, n. 25); Uscatescu, *La Cerámica del Macellum*, 66–89 (above, n. 25); Watson, “Jerash Bowls” (above, n. 25).



Fig. 9 View of the Civic Complex at Pella from the north, showing the church atrium (rear) and adjacent markets (foreground)

two significant amendments to earlier propositions can be offered: an ongoing commercial role for towns, without doubt accompanied by structural changes but not characterized by major economic and organizational failure; and the vibrancy of rural areas, especially those in the more marginal environmental zones (or rather, that is where the best evidence has survived).

The evidence for economic conditions in towns during the seventh century is still fragmentary, but there is now unanimous consensus that the Islamic expansion left towns intact, even Caesarea, which held out until 640,³⁷ and that the supposed destructions associated with the earlier Sasanid conquest have been overly exaggerated.³⁸ For many sites, the presence of an active urban community in the early part of the eighth century has been used to imply continuity in the seventh as well, and the discovery of diagnostic ceramics datable to that century would indicate that to be the case (e.g., at Jerusalem);³⁹

³⁷ Early reports describe a “destruction complete and irretrievable,” a conclusion later dismissed by the excavators, for which see the important works by K. G. Holum, “Archaeological Evidence for the Fall of Byzantine Caesarea,” *BASOR* 286 (1992): 73–85; and C. Lenzen, “Byzantine/Islamic

Occupation at Caesarea Maritima as Evidenced through the Pottery” (Ph.D. diss., Drew University, 1983).

³⁸ Note, for instance, Magness, *Jerusalem Ceramic Chronology*, esp. 66–71 (above, n. 25), where a proposed Sasanid destruction level in Jerusalem is refuted.

³⁹ *Ibid.*, 16–118 presents type-sites in the Jerusalem region with seventh-century deposits.



Fig. 10 Housing of the mid-eighth century at Pella

nonetheless, the actual identification of seventh-century activity such as construction or repair has posed an ongoing problem.⁴⁰

At Pella the seventh century is unusually visible in the architectural record revealing not only activity, but a concern with economic infrastructure. Sometime in the seventh century, a complex of rooms on two stories measuring 8.5 m high was built on the northern side of the cathedral church (fig. 9).⁴¹ The rooms were faced with porches and galleries that looked out onto an open paved court. The complex, for the most part commercial in purpose, it would seem, was clearly of major importance in the life of the town, because it flanked the main entrance into the church atrium from the north. It could have been built as part of the post-659-60 earthquake repair of the church, which is attested in the architectural evidence. On the main mound, following the same earthquake, former terrace housing lining gravelled streets was replaced by free-standing, self-contained units centered on one or more sizable courtyards, either paved or earth-surfaced

40 For the difficulties associated with the seventh century in general, see J. Johns, "Archaeology and the History of Early Islam: The First Seventy Years," *JESHO* 46 (2003): 411-36.

41 R. H. Smith, *Pella of the Decapolis*,

vol. 2, *Final Report on the College of Wooster Excavations in Area IX, the Civic Complex, 1979-1985* (Wooster, Oh., 1989); a somewhat different interpretation (the same as that given here) in A. Walmsley, "Households at Pella, Jordan: The Domestic Destruction

Deposits of the Mid-eighth Century," in *Objects in Context, Objects in Use: Material Spatiality in Late Antiquity*, ed. L. Lavan, E. Swift, and T. Putzeys (Leiden, 2007).

(fig. 10). While these domestic structures were socially differentiated from what had been before,⁴² the ability of individuals to repair and redesign their houses on a respectable scale indicates financial resources beyond the absolute minimum. In other words, there was enough money around to undertake more than just basic repairs.

Nevertheless, archaeological work at a number of town sites has revealed compelling proof for a contraction in absolute size during the seventh century, but the interpretation of this phenomenon is more difficult to determine. At Jerash the zone north of the Temple of Artemis was abandoned about the middle of the century, but at the same time settlement concentration in the center of the site around the south tetrakionia plaza seems to have increased, in part facilitated by the availability of an excellent water supply. At some time in the seventh century, perhaps, streets and plazas were in-filled with (unspecified) structures, most likely commercial rather than domestic.⁴³ What would seem to be happening at Jerash are changes, not decay, to essential urban structures, especially a focusing of economic activity.

Other towns show similar evidence for size reduction. At Pella the fort on the summit of Tall al-Husn was not rebuilt after the 659/60 earthquake, whereas other parts of the town were restored (above). In east Apamea, the *Maison aux consoles* and the *Maison aux pilastres* were severely damaged in the 659/60 earthquake; and although occupation continued after that date, the buildings were only partially cleared, not fully or even adequately repaired (fig. 11). The nearby *Maison aux graffiti* was used for glass manufacturing and, later, as a dump for rubbish. As at Jerash, in-filling of open space in the urban core seems to have coincided with a running down of outer areas. Yet, whether peripheral decay and evacuation is a common urban trend in the seventh century that happened simultaneously at many towns or was a more isolated, site-specific phenomenon is unclear. Did Jerusalem, Aleppo, or Damascus contract like this, for instance? At Antioch the shrinking of the urban area occurred mostly in the sixth

42 A. Walmsley, "The Social and Economic Regime at Fihl (Pella) and Neighbouring Centres, between the 7th and 9th centuries," in Canivet and Rey-Coquet, *La Syrie de Byzance à l'Islam*, 249–61 (above, n. 21), and Walmsley, "Households at Pella."

43 Because the structures were "cleared" without adequate records being kept, it is impossible to know precisely. See the comments in Harding, "Recent Work on the Jerash Forum," and C. H. Kraeling, "Roman

Buildings III. The South Tetracylon," in *Gerasa, City of the Decapolis*, ed. C. H. Kraeling (New Haven, 1938), 103–15. Coins found under the oval plaza structures end with Maurice Tiberius (582–602), but this might be a hoard buried after the buildings were erected.



Fig. 11 Urban contraction: Maison aux consoles at Apamea, Syria

century, and seems peculiar to that site.⁴⁴ The issue is, it would seem, still open, and probably site-specific.

Better evidence exists for rural-settlement expansion in the seventh century, although some interpretations are a little contentious, as we will see. First, there are some historical sources. They record that the acquisition of country estates in Syria-Palestine by Muslims began under the Caliph 'Uthman (r. 644–56). A popular area was the Darum, a region of steppe lands in southern Palestine east of Ascalon, in which 'Amr ibn al-Āṣ, "Conqueror of Palestine," acquired an estate called 'Ajlan, which served as a place of retreat during political upheavals.⁴⁵ Similarly, in 687/8 'Alī ibn 'Abd Allah ibn al-Abbās

44 Apamea: J. Balty, ed., *Apamée de Syrie: Bilan des recherches archéologiques, 1973–1979. Aspects de l'architecture domestique d'Apamée: Actes du colloque tenu à Bruxelles les 29, 30 et 31 mai 1980* (Brussels, 1984), 19–106, 501, but the chronology seems dominated by numismatic data and there are doubts; Balty also argues for the arrival of new peoples (Arabs) with the Islamic conquest, which contributed to the ruralization of the town. Few writers would argue this now. See Foss, "Syria in Transition, A.D.

550–750," 205–29 (above, n. 17), with blame clearly aimed at the Sasanid sack of 573. Antioch and the north: H. Kennedy, "Antioch: From Byzantium to Islam and Back Again," in *The City in Late Antiquity*, ed. J. Rich (London, 1992), 181–98; H. Kennedy and J. H. W. G. Liebeschuetz, "Antioch and the Villages of Northern Syria in the Fifth and Sixth Centuries A.D.: Trends and Problems," *Nottingham Medieval Studies* 32 (1988): 65–90; Kennedy, "The Last Century of Byzantine Syria: A

Reinterpretation," *ByzF* 10 (1985): 141–84; H. Kennedy, "From *Polis* to *Madina*: Urban Change in Late Antique and Early Islamic Syria," *Past & Present* 106 (1985): 3–27; see also Foss, "Syria in Transition," 190–204. Apamea and Antioch appear to be somewhat unusual, but significant cases.

45 Details in M. Lecker, "The Estates of 'Amr b. al-Ās in Palestine: Notes on a New Negev Arabic Inscription," *BSO[AS]* 52 (1989): 24–37.



Fig. 12 Early Islamic mosque and *qasr* (to left, in distance) at Humaymah, south Jordan

purchased a village-estate known as Humaymah, located today in south Jordan. This site, the subject of excavations, was embellished with a small mosque and *qasr*, and became a base for the 'Abbāsid revolt against the Umayyads (fig. 12).⁴⁶

The most obvious impact of settlement expansion in rural areas can be seen in the Jordanian steppe lands east of Amman and Jerash, where imposing architectural remains at village sites such as Umm al-Jimal, Rihab, Khirbat al-Samra, and Umm al-Rasas document the expansion of rural settlement in late antiquity (fig. 13). For once epigraphical sources, mostly church-mosaic inscriptions, are useful for showing that much of this growth was a seventh-century phenomenon.⁴⁷ The evidence shows that a substantial leap in building activity took place in southern Syria-Palestine during the later sixth and early seventh centuries, notably under the emperors Maurice, Phocas, and Herakleios (fig. 14). Much of this activity was not urban-based, but concentrated in the steppe villages of Jordan. The construction

⁴⁶ R. Foote and J. P. Oleson, "Humeima Excavation Project, 1995–96," *Fondation Max Van Berchem Bulletin* 10 (1996): 1–4; J. P. Oleson, K. 'Amr, et al., "Preliminary Report on the Humayma Excavation Project, 1993," *AAJord* 39 (1995): 317–54.

⁴⁷ See the comprehensive study by L. Di Segni, "Epigraphic Documentation on Building in the Provinces of *Palaestina* and *Arabia*, 4th–7th c.," in *The Roman and Byzantine Near East*, vol. 2, *Some Recent Archaeological Research*, ed. J. H. Humphrey

(Portsmouth, R.I., 1999), 149–78; also M. Piccirillo, *The Mosaics of Jordan* (Amman, 1993) for the church mosaics.

of churches predominated. At Rihab, east of Jerash, eight churches were constructed between 594 and 635, in 594, 595, 605, 620, 623 (two churches), and 635 (two churches).⁴⁸ The pattern is repeated a little to the south at Khirbat al-Samra, where inscriptions date three churches to 633/35, 634, and 637, all during the period of the Islamic expansion.

The reason why the steppe regions of Jordan flourished architecturally in the seventh century is unclear; it may have been connected to the relocation of elites from the main towns, in part in response to the outbreak of plague, a declining resource base in the agricultural areas, the changing sociopolitical objectives of settled nomads, or partly because of the growing importance of Damascus and routes south to the Hijaz. Probably all of these, and a range of other factors, combined to shape the steppe villages in the late sixth and seventh centuries.

Similar conclusions on seventh-century expansion in the urban periphery have recently been evaluated by Jodi Magness with regard to settlement in the Negev and the Belus massif in north Syria.⁴⁹ Magness considers two current theories on settlement patterns in the Negev that superseded older, prejudicial views of Arab-Muslim desolation.⁵⁰ The first, by Mordechai Haiman,⁵¹ identified two peaks of farm settlements, one to Byzantine times before the mid-sixth century and another, concentrated in the southern Negev near the Ramon Crater, to the Umayyad period, this time with associated mosques. In this scenario, the seventh century was one of stagnation. However, Gideon Avni postulated a different explanation, arguing that farms in the south were established in the late sixth century



Fig. 13 View of the wheat harvest and grazing sheep in Jordan *badiyah* in late spring, a terrain that supported a mixed agricultural and pastoral economy, equally adaptable and resilient

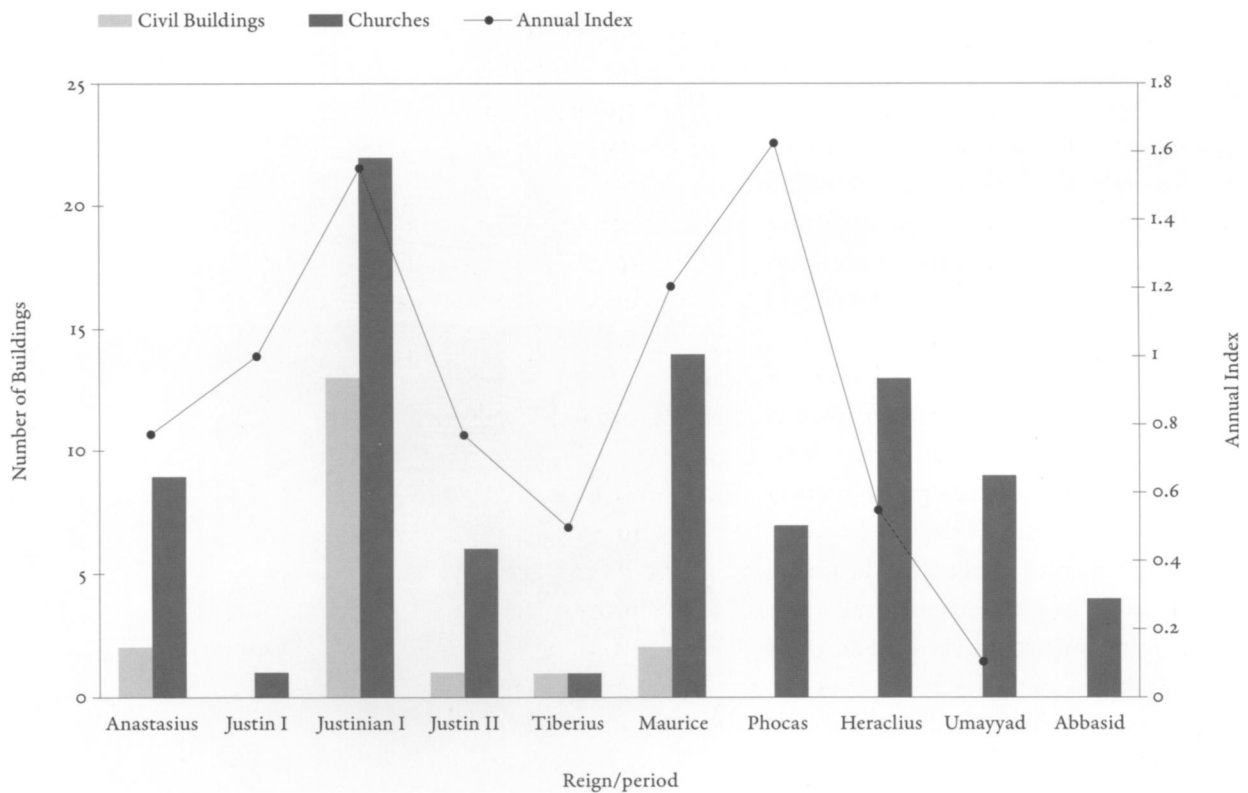
⁴⁸ Di Segni, "Epigraphic Documentation," 165.

⁴⁹ J. Magness, *The Archaeology of the Early Islamic Settlement in Palestine* (Winona Lake, 2003); reviewed in A. Walmsley, "The Archaeology of the Early Islamic Settlement in Palestine, by Jodi

Magness (book review)," *BASOR* 337 (2005): 106–9. See also the background and analysis of this region in C. Foss, "The Near Eastern Countryside in Late Antiquity: A Review Article," in *The Roman and Byzantine Near East*, 213–34, at 213–25, which is largely accepting of Tate's perspective.

⁵⁰ Magness, *Archaeology of the Early Islamic Settlement in Palestine*, 130–76.

⁵¹ M. Haiman, "Agriculture and Nomad-State Relations in the Negev Desert in the Byzantine and Early Islamic Periods," *BASOR* 297 (1995): 29–53.



and peaked in the seventh century in response to the decline of the Negev towns farther north, and remained occupied until their abandonment in the late eighth and ninth century.⁵² Unfortunately, as Magness concludes, the archaeological framework of the Negev village sites, many identified only by survey, is too obscure to argue further except to note clear seventh-century occupation, be it stagnant or the result of growth.

Magness also critically analyses the recent French excavations at D  h  s in north Syria as part of her questioning of the widely accepted view that Syrian society offered little resistance to an expanding Islamic hegemony because of its weakened state—militarily and financially—at the start of the seventh century. Following upon a redating of the structures by pottery and coins from sealed levels, Magness differs with the excavators Georges Tate and Jean-Pierre Sodini by dating the main period of house construction at the site to the second half of the sixth and earlier seventh century, not the fourth and fifth as proposed by Tate and Sodini. If her conclusions

Fig. 14 Rates of construction activity in the southern Levant. Bar graphs: building activity in Jordan; line graph: annual building rates in the three Palestines and Arabia (numbers from L. Di Segni, "Epigraphic Documentation on Building in the Provinces of Palaestina and Arabia," in *The Roman and Byzantine Near East*, vol. 2, *Some Recent Archaeological Research*, ed. J. H. Humphrey [Portsmouth, R.I., 1999], 149–98).

52 G. Avni, *Nomads, Farmers, and Town-Dwellers: Pastoralist-Sedentist [sic] Interaction in the Negev Highlands, Sixth-Eighth Centuries CE* (Jerusalem, 1996); Avni, "Early Mosques in the Negev Highlands: New Archaeological Evidence on Islamic

Penetration of Southern Palestine," *BASOR* 294 (1994): 83–99. Avni's thesis seems to be little more than a recast "desert and sown" conceptualization of social interaction in late antiquity. The dating is a different issue; Hirschfeld agrees with Avni over Haiman,

proposing that Haiman's error is to date the structures by finds on their floors, which represents final use, not construction (Y. Hirschfeld, "Farms and Villages in Byzantine Palestine," *DOP* 51 [1997]: 33–71, esp. 35 n. 10, 55–57).

are correct, the period of prosperity of the Belus massif villages will need to be expanded to encompass the seventh century, with stagnation not emerging until later. Magness takes the argument further by reassessing the evidence from Antioch and Caesarea Maritima, again arguing for significant activity, if not prosperity, in the later sixth and seventh centuries. If urban and rural life continued at a high level in the period leading up to the Islamic expansion, which seems quite clear for the south of Syria-Palestine, then the successes of the Islamic armies in the 630s are even more remarkable and make more questionable the idea of a supposedly “easy conquest,” for the Islamic victory lay not in the speed of the conquest, but in the subsequent consolidation of rule.

The successful political consolidation of Muslim rule over Syria-Palestine in the seventh century was matched by significant continuities in the monetary economy, production, and trade that were to ensure Muslim hegemony in the region and, for a number of decades, Umayyad domination of the Islamic world. Without the overall maintenance of the seventh-century economy, the Marwanid Umayyads would have lacked the firm fiscal basis from which to launch their social and cultural reforms, reforms that were further to accelerate the economy of Syria-Palestine in the first half of the eighth century, which is the subject of the next section.

The Eighth Century

I hope that the discussion above has dispelled, to some degree, the notion of the seventh century as a period of acute economic stagnation and ruin. The eighth-century economy is, as a result, better understood as the outcome of further, yet impressive, reform and development programs made possible by an already-sound foundation. The intention of the Marwanid Umayyads (684–750) was to improve and expand what had already proved effective, so as to consolidate the dynasty while expanding its financial base as the territorial gains slowed. These improvements can be seen in a range of measures adopted from the time of ‘Abd al-Malik (r. 685–705) onward. Much more is known from archaeological sources about the eighth-century economy of Syria-Palestine, and literature on the question is reasonably extensive.⁵³ In this paper, only some of the more important points can be considered, and with emphasis on those themes discussed previously in the treatment of the seventh-century economy.

Coinage

The circulation patterns preserved in seventh-century coin hoards and site finds from Syria-Palestine reveal a noticeable regionality in economic networks, but in the following century the numismatic

53 For an initial consideration of this topic see Walmsley, “Production, Exchange and Regional Trade,” esp. 305–43 (above, n. 14).

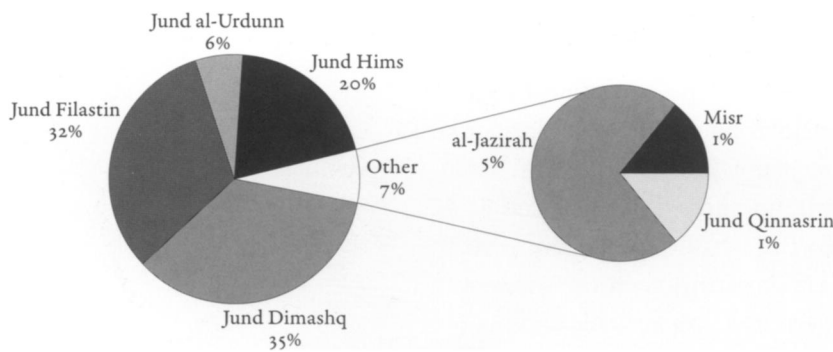


Fig. 15 Coin percentages from the excavation of a large building at Herodian Jericho (numbers from J. B. Pritchard, *The Excavation at Herodian Jericho, 1951* [New Haven, 1958], 29–41)

data paint a different, more complex, economic picture, even taking into account the greater production of coin. There were fundamental structural differences in the monetary economy of the seventh and eighth centuries that encouraged the wider movement of coinage. Whereas the seventh century perpetuated a divided and regionally constrained monetary supply, 'Abd al-Malik's reforms at the end of the century—as much political as economic—created a unified and empire-wide currency that quickly gained wide acceptance.

If we return to Jerash, the coin data reveal a significant widening of economic activity, with 46 percent of all retrieved coins originating from mints located outside of the home province.⁵⁴ The range of mints is also wider, especially those located in neighboring Filastin and Dimashq. The coins would suggest that Jerash was emerging from seventh-century localism by extending west and north in its trade activities. A similar view of economic expansion is seen in the coins from the excavation of Herodian Jericho, located in the Jund Dimashq (fig. 15).⁵⁵ That *jund* and the adjacent province of Filastin provided the most coin (twenty-nine and twenty-seven specimens, respectively), followed by Hims (seventeen), al-Urdunn (five), and al-Jazirah (four), all the latter from the single mint of al-Ruha. Two points are noteworthy: the continuing importance and extending reach of an east-west trade axis along major land routes first seen in the seventh-century ceramic evidence (above), and the notable presence of Jaziran coins from Edessa in the corpus, a phenomenon repeated at Jerash and Pella.

54 Figures based on A. R. Bellinger, *Coins from Jerash, 1928–1934* (New York, 1938); T. Marot, *Las monedas del Macellum de Gerasa (Yaraš, Jordania): Aproximación a la circulación monetaria en la provincia de Arabia* (Madrid, 1998); see also Walmsley, "Production, Exchange and Regional Trade," 336–37.

55 G. C. Miles, "Catalogue of Islamic Coins," in *The Excavations at Herodian Jericho, 1951*, ed. J. B. Pritchard (New Haven, 1958), 29–41 (also accessible at <http://www.links.jstor.org>).

Hoards likewise reflect the wider geographical origins of post-reform Umayyad coinage. While often the most prolific mints predominate, for instance Wasit in the case of dirhams, the balance of the hoards had a wide range of mints as their source. While three-quarters of the dirhams in the Silver Hoard of Damascus came from Wasit, almost 18 percent were products of mints from Spain to Afghanistan and Armenia.⁵⁶ A mid-eighth-century accidental hoard of dirhams recently recovered at Jerash was similarly dominated by the Wasit mint, but with complementary issues from the rest of the eastern Islamic empire, which was its likely region of origin.

Material Culture:

The Visibility of the Eighth Century

The growing dependence on locally produced pottery in the seventh century encouraged the growth of town-based ceramic industries. By the start of the eighth century, and throughout much of it, locally manufactured wares, as opposed to imports, were dominant in the region, as revealed in their overwhelming representation in the excavated ceramic corpora. Production increasingly extended beyond the manufacture of plain coarse cooking and storage wares to the development of aesthetically pleasing decorated wares including the greater use of paint.⁵⁷ Technologically the wares also show greater ability on the part of the artisans, with well-levigated fabrics, superior manipulation of the potter's wheel resulting in ultra-thin wares, and sophisticated temperature control in the kilns. Palestinian Fine Table Ware approaches its apogee, while even the more mundane white-painted products from Jerash reflect technical skill and are attractive. Most remarkable is the abrupt appearance of a highly sophisticated

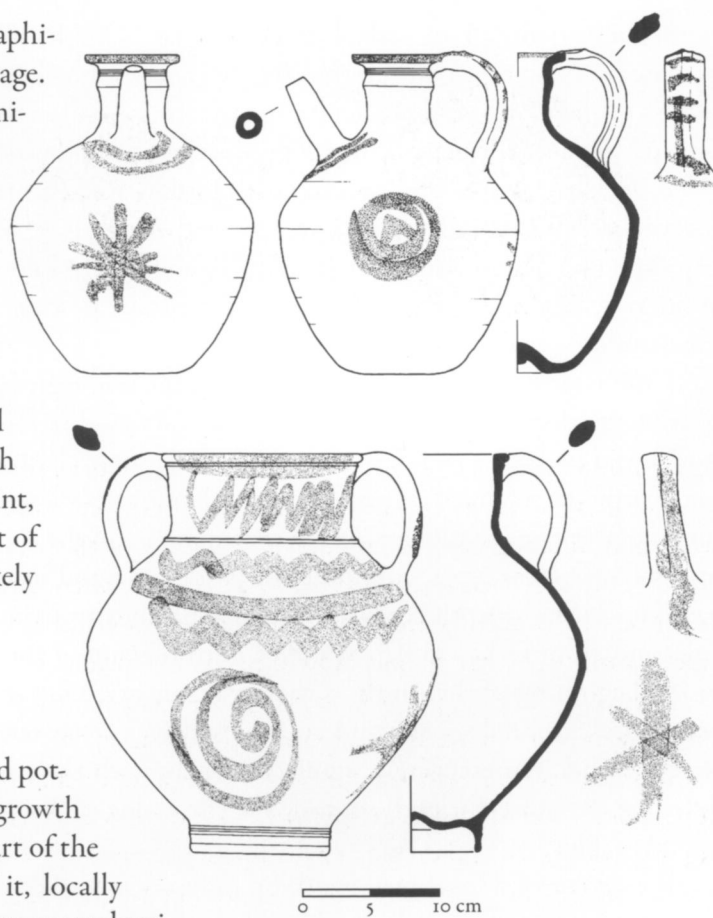


Fig. 16 Umayyad style: mid-eighth-century red painted wares from Pella

⁵⁶ Figures from the detailed study in M. Abu-l-Faraj al-Ush, *The Silver Hoard of Damascus* (Damascus, 1972).

⁵⁷ Reviewed in A. Walmsley, "Tradition, Innovation, and Imitation in the Material Culture of Islamic Jordan: The First Four Centuries," in *Studies in the History and Archaeology of Jordan*, vol. 5, ed. K. 'Amr, F. Zayadine, and M. Zaghoul (Amman, 1995), 657–68; Walmsley, "Ceramics and

the Social History of Early Islamic Jordan: The Example of Pella (Tabaqat Fahl)," *Al-'Usur al-Wusta* 9 (1997): 1–3, 12; Sodini and Villeneuve, "Le Passage de la céramique byzantine à la céramique omeyyade"; R. Schick, "Palestine in the Early Islamic Period: Luxuriant Legacy," *Near Eastern Archaeology* 61, 2 (1998): 74–108, at 90–94.

ware boldly painted in red abstract designs.⁵⁸ Made from well-prepared clay on a fast wheel, the jars, jugs, plates, bowls, and cups reach a peak in range and quality during the second half of the eighth century (fig. 16). The main center of production is still unknown, but given the clustering of find-sites in north Jordan, Red Painted Ware was probably made in the Balqā area around Amman. One coarser cup type was manufactured at Jerash.⁵⁹ Examples are known from as far away as the Hawran and north and central Palestine, over 150 km distant.

Unlike the coin data, ceramic profiles of the mid-eighth century continue to display strong continuity in local styles, distribution networks, and perhaps cultural preferences. While some changes in the total corpus of ceramics are perceptible in the first decades of the century, notably the cessation of Fine Ware imports and the appearance of some new local types, continuity of production and distribution based on earlier-seventh-century styles is apparent throughout Syria-Palestine, from Dêhès to Aqabah. Not until the end of the century, or the beginning of the ninth, is there a major overhaul of ceramic preferences, technologically and culturally driven from outside the region. While representing a significant break with the past, these developments nevertheless lie outside the chronological limits of this current paper.⁶⁰

The extent of a local metalworking industry is revealed by iron workshops at Caesarea, Pella, and Jerash, and the common recovery by excavation of iron implements such as digging and cutting tools, torch bases, and numerous nails. Glass manufacturing continued at a popular level, with bowls, beakers, flasks, and dishes displaying a style evolving out of sixth-century Byzantine forms.⁶¹ As with the

58 A.-J. Amr, "Umayyad Painted Pottery Bowls from Rujm al-Kursi, Jordan," *Berytus* 34 (1986): 145–59; M. Gawlikowski, "Céramiques byzantines et omayyades de Jerash," in Meyza and Młynarczyk, *Hellenistic and Roman Pottery in the Eastern Mediterranean*, 83–86 (above, n. 26).

59 Note, for instance, the common occurrence of this ware at Umm al-Rasas near Madaba (E. Alliata, "Ceramica dal Complesso di Santo Stefano a Umm al-Rasas," *Liber Annuus* 41 [1991]: 365–422; M. Piccirillo and E. Alliata, *Umm al-Rasas—Mayfa'ah I: Gli Scavi del Complesso di Santo Stefano* [Jerusalem, 1994], 282–86); Mount Nebo: M. Piccirillo and E. Alliata, *Mount Nebo: New Archaeological Excavations, 1967–1997* (Jerusalem, 1998); H. R. Schneider, *The Memorial of Moses on Mount*

Nebo, part 3, *The Pottery* (Jerusalem, 1941), 25–26; Tell Jawa south of Amman: P. M. Daviau and M. Beckmann, "Umayyad Painted Pottery and Abbasid Period Lamps at Tell Jawa: A Chronological Dilemma," in Villeneuve and Watson, *La céramique byzantine et proto-islamique*, 259–74 (above, n. 25); Amman: A. Northedge, *Studies on Roman and Islamic Amman*, vol. 1, *The Excavations of Mrs C.-M. Bennett and Other Investigations* (Oxford, 1992), esp. fig. 131; and at Khirbat Samra, just north of Amman: J.-B. Humbert, "Arguments chronologiques pour expliquer le déclin de Khirbet Es-Samra et de Mafraq: Des jarres, du vin et des images," in Villeneuve and Watson, *La céramique byzantine*, 249–61.

60 See, preliminarily, Walmsley, "Tradition, Innovation, and Imitation in

the Material Culture of Islamic Jordan"; Walmsley, "Turning East: The Appearance of Islamic Cream Wares in Jordan—The End of Antiquity?," in Villeneuve and Watson, *La céramique byzantine*, 305–13; Walmsley, "Production, Exchange and Regional Trade in the Islamic East Mediterranean," 329–31 (above, n. 14); D. Whitcomb, "Khirbat al-Mafjar Reconsidered: The Ceramic Evidence," *BASOR* 271 (1988): 51–67.

61 M. O'Hea, "The Glass Industry of the Decapolis," *ARAM* 4 (1992): 253–64; Schick, "Palestine in the Early Islamic Period," 94–95 (above, n. 47); also the papers in *La route du verre: ateliers primaires et secondaires du second millénaire av. J.-C. au Moyen Âge*, ed. M.-D. Nenna (Lyon, 2000), and the workshop in the Maison aux graffiti at Apamea mentioned earlier (above, n. 44).

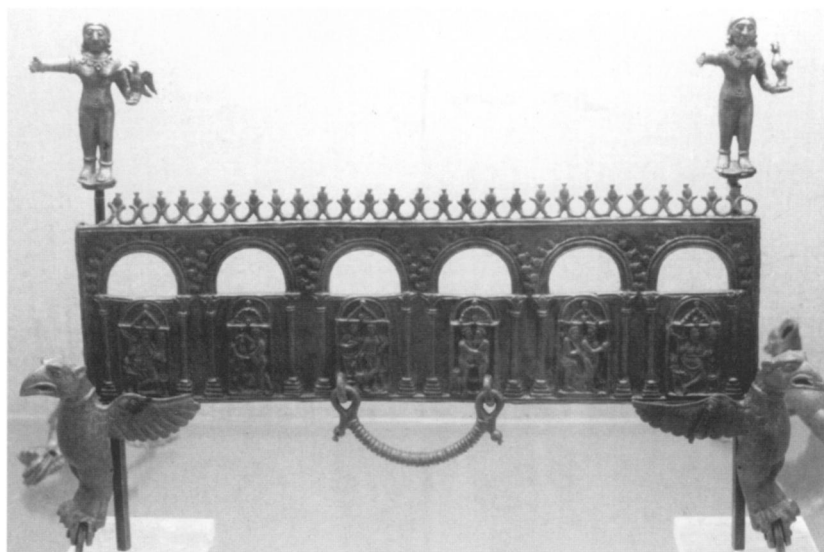


Fig. 17 Copper alloy brazier of the mid-eighth century from Fidayn, displaying strong Coptic influences in its imagery (Archaeological Museum, Amman, Jordan. Photograph by the author.)

ceramics, not until the early ninth century does glass in the region exhibit a significant shift away from late antique styles by the adoption of new shapes and decorative techniques.

The recovery of more prestigious objects during the course of excavation reveals the widening extent of interregional trade in the eighth century. Steatite bowls, lamps, incense burners, and small containers, often intricately decorated with incised abstract designs, have been found in many locations but especially in southern Syria-Palestine, which is not so surprising given the proximity of this region to the steatite quarries of the Hijaz.⁶² The high status of steatite bowls is reflected in the production of a local ceramic version, with imitative ledge handles and incised decoration externally but inventive white and red painted decoration on the interior. Valuable silk cloth in a variety of weaves is known from the rare carbonized remains uncovered in the mid-eighth-century destruction level at Pella.⁶³ Metal goods manufactured from copper alloy were also widely traded—a fenestrated brazier from Pella displays obvious Coptic affinities, as does the magnificent box-brazier from an eighth-century palatial complex at Fidayn (Mafrāq) with its overtly late antique Coptic “romp” scenes (fig. 17).⁶⁴

⁶² Especially at Aqabah (D. Whitcomb, *Ayla: Art and History in the Islamic Port of Aqaba* [Chicago, 1994], 27–28); and also Amman (G. L. Harding, “Excavations on the Citadel, Amman,” *AAJord* 1 [1950]: 7–14), with quarries located inland from the Red Sea port of al-Hawra in the northwest Hijaz (see A. Kisnawi, P. de Jesus, and B. Rihani, “Preliminary Report on the Mining Survey, Northwest Hijaz, 1982,” *Atlat* 7 [1983]: 76–83).

⁶³ Full study in G. M. Eastwood, “The Pella Textiles,” in *Pella in Jordan 2: The Second Interim Report of the Joint University of Sydney and College of Wooster Excavations at Pella 1982–1985*, ed. A. W. McNicoll, J. Hanbury-Tenison, et al. (Sydney, 1992), 257–65.

⁶⁴ A. Walmsley, “Land, Resources and Industry in Early Islamic Jordan (Seventh–Eleventh Century): Current Research and Future Directions,” in *Studies in the History*

and Archaeology of Jordan, vol. 6, *Landscape Resources and Human Occupation in Jordan throughout the Ages*, ed. G. Bisheh, M. Zaghloul, and I. Kehrberg (Amman, 1997), 345–51, at 349, with references.



Fig. 18 The *suq* at Palmyra of linear shops prefaced with a portico

Settlement: Urban Regeneration and Rural Growth

Twenty or thirty years ago, any discussion of the urban setting in Syria-Palestine during the eighth century would have focused on a history of surviving monuments (notably the Great Mosque of Damascus and the Dome of the Rock in Jerusalem) and the transformation of the classical town from a rigid checkered “polis” to an anarchic and tortuous *madinah*, or the relative merits of the “spontaneous” and the “created” city.⁶⁵ Today, fortunately, much more can be discussed, allowing us to step aside for now from the overburdened issue of the polis-to-madinah transformation.

The continuing commercial significance of towns in the eighth century is revealed in the deliberate attempt to refurbish their economic infrastructure, a move initiated at the highest levels of government. The clearest expression of renewal can be seen in the widespread construction of market streets within the existing towns of Syria-Palestine, including Baysan, Arsuf, Rusafah, Jerash, Tabariyah, and Palmyra. The extent, both in size and geographical distribution, of improvements in the infrastructure of towns suggests it was the usual, rather than an exceptional event. On occasion, existing streets were redesigned by the insertion of shops along their length, as seen clearly at Palmyra (over one hundred shops; fig. 18), Jerash,

⁶⁵ Such as A. H. Hourani, “The Islamic City in the Light of Recent Research,” in *The Islamic City: A Colloquium*, ed. A. H. Hourani and S. M. Stern (Oxford, 1970), 9–24; I. M. Lapidus, ed., *Middle Eastern Cities* (Berkeley, 1969), and Kennedy, “From Polis to Madina: Urban Change in Late Antique and Early Islamic Syria” (above, n. 44), all pioneering works nonetheless.

and Baysan.⁶⁶ In other instances, completely new market streets were constructed within the infrastructure of a town. The market street in the center of Baysan, built at the order of the active and long-serving caliph Hisham, fitted seamlessly into the existing classicizing urban vista, with colonnaded porticos, walkways, and rows of adjoining shops (fig. 19).⁶⁷ Shops were added on the west side of the main axial street of Jerash as part of the town's embellishment with a mosque (fig. 20).

New urban foundations in the eighth century, of which there were only a few in Syria-Palestine, also reveal the importance of markets. Shops lined the axial cross-streets of Aylah (al-Aqabah), while at Anjar, strategically positioned in the Biqá valley midway between Damascus and the ports of Beirut and Sidon, the urban prominence of the marketplace becomes clear, with linear shops flanking both sides of monumental streets (fig. 21).⁶⁸ What had previously been seen as a disconcerting "un-Islamic" urban tone initially created great doubt as to the correct dating of Anjar's foundation, but today the colonnaded market streets that characterize the site fit unsurprisingly into the known urban environment of Syria-Palestine in the eighth century.

Markets facing out onto a square also feature in the eighth-century urban environment of Syria-Palestine. Under Hisham, an L-shaped market flanking a central court was erected at Rusafah, linking mosque and church.⁶⁹ Similarly, the citadel complex of Amman was equipped with a market square (actually slightly rhomboidal in shape, to accommodate a larger street layout) placed between palace and mosque, with linear shops lining the court behind a portico



Fig. 19 Detail of the fallen portico of the suq at Baysan (Scythopolis), constructed ca. 736–43 and destroyed in 749

⁶⁶ The Palmyrene example is the best reported (K. As'ad and F. M. Stepiñowski, "The Umayyad Suq in Palmyra," *DM* 4 [1989]: 205–23).

⁶⁷ E. Khamis, "Two Wall Mosaic Inscriptions from the Umayyad Market Place in Bet Shean/Baysan," *BSO[A]S* 64 (2001): 159–76; Y. Tsafir and G. Foerster, "Urbanism at Scythopolis-Bet Shean in the Fourth to Seventh Centuries," *DOP* 51 (1997): 85–146 at 138–40. The market street was at first mistakenly attributed to the sixth century until the discovery of the mosaic foundation inscription detailed in the article by Khamis.

⁶⁸ R. Hillenbrand, "Anjar and Early Islamic Urbanism," in *The Idea and Ideal of the Town between Late Antiquity and the Early Middle Ages*, ed. G. P. Brogiolo and B. Ward-Perkins (Leiden, 1999), 59–98; D. Whitcomb, "The Misr of Ayla: Settlement at al-'Aqaba in the Early Islamic Period," in *The Byzantine and Early Islamic Near East*, vol. 2, *Land Use and Settlement Patterns (Papers of the Second Workshop on Late Antiquity and Early Islam)*, ed. G. R. D. King and A. Cameron (Princeton, 1994), 155–70.

⁶⁹ T. Ulbert, "Beobachtungen im Westhofbereich der Großen Basilika von Resafa," *DM* 6 (1997): 403–16, plates 72–76.

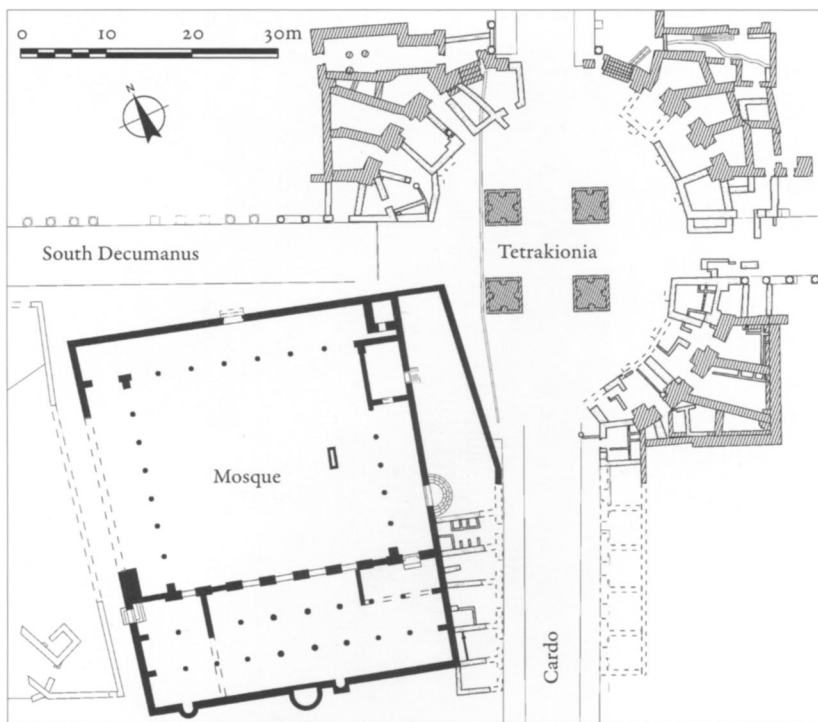


Fig. 20 Plan of central Jerash in the mid-eighth century, showing the inserted mosque and related commercial structures, including new shops abutting the mosque's east wall (plan by Ian Simpson)

Fig. 21 View of the shops, sidewalk, and colonnades at Anjar, Lebanon



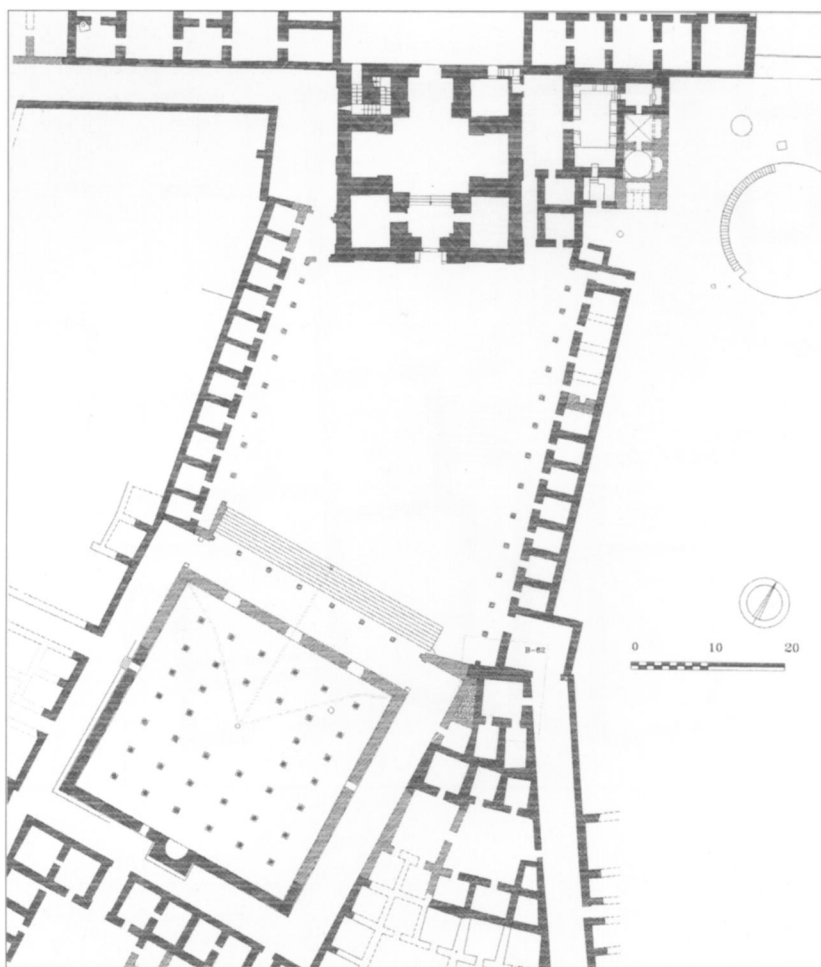


Fig. 22 The *sug* square, Amman Citadel, 730s to 740s (from A. Almagro and I. Arce, "The Umayyad Town Planning of the Citadel of Amman," fig. 2)

(fig. 22).⁷⁰ At Pella the seventh-century market adjacent to the cathedral church continued in use until the mid-eighth-century earthquake, after which two adjoining complexes were erected on new ground north of the shattered post-Classical town (figs. 23 and 24).⁷¹ Each complex resembled a caravansery, with a prominent central court flanked with shops, manufacturing areas, storage rooms, and habitation zones. These primarily commercial complexes were the first and most prominent structures replaced in the town following the earthquake of 749, overshadowing in size any mosque that may have been built.

70 A. Almagro and I. Arce ("The Umayyad Town Planning of the Citadel of Amman," in *Studies in the History and Archaeology of Jordan*, 7 [Amman, 2001], 659–65) give a brief review of the architectural features, emphasizing the central square and market (662).

71 A. Walmsley, "The Social and Economic Regime at Fihl (Pella) and Neighbouring Centres, Between the 7th and 9th Centuries," in Canivet and Rey-Coquais, *La Syrie de Byzance à l'Islam*, 249–61 (above, n. 21).

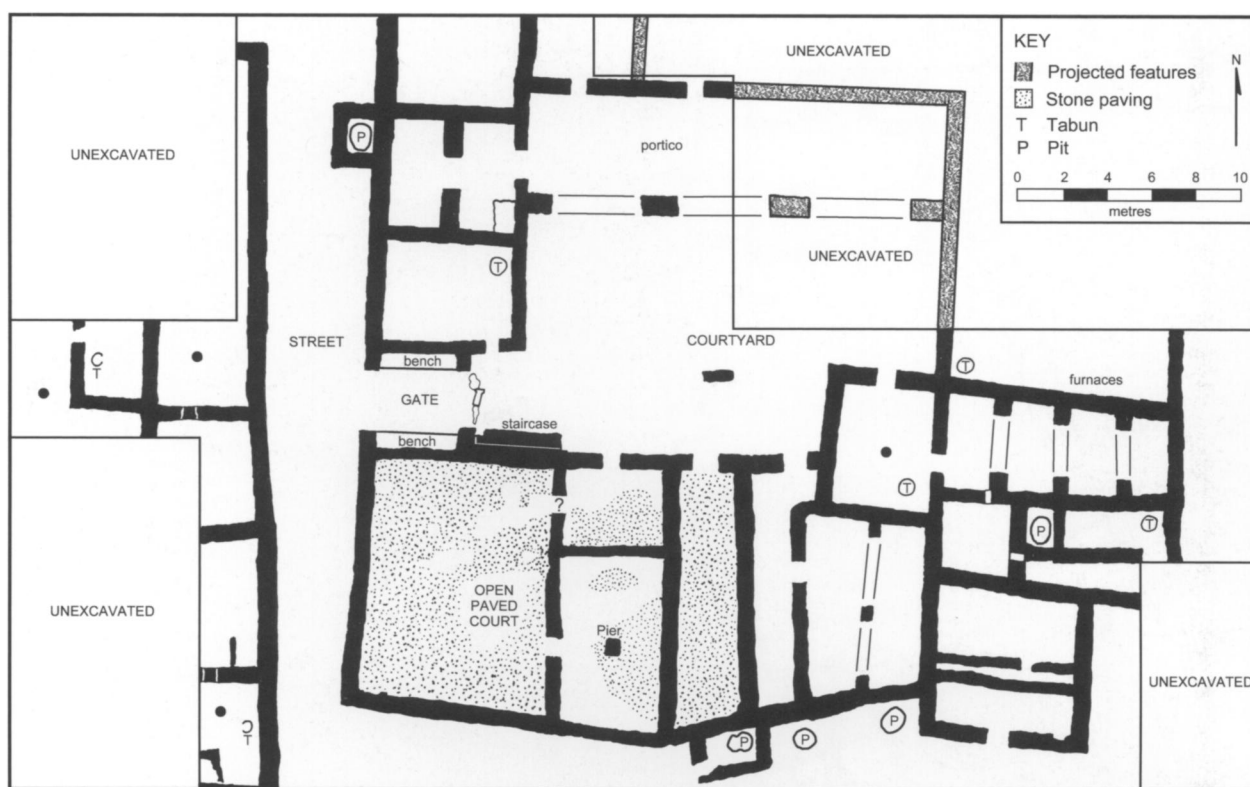


Fig. 23 Plan of the excavated section of the double caravansery complex at Pella, second half of the eighth century

Manufacturing and commerce had, from their seventh-century antecedents, expanded into major economic activities in towns by the eighth century. As noted earlier, a growing reliance on local production centers for the provision of all classes of ceramics, fine and coarse, encouraged the establishment of factory-like potting complexes in disused sectors of towns. At Baysan, ten updraft kilns with associated preparation areas and storeroom were installed within the defunct theater, and other kilns established elsewhere.⁷² At Jerash, a similar factory-scale pottery workshop was built in the compound of the temple of Artemis, including a huge stone-built kiln (fig. 25), with many other kilns in the nearby north theater.⁷³ Kilns built to an industrial level were also excavated at Busra, while evidence for ceramic production was also identified at Caesarea, al-Raqqa, and Madinat al-Far in north Syria, among other places, suggesting that many towns had a local potting industry. Textile production on a commercial scale is evidenced by the substantial conversion of a

72 R. Bar-Nathan and G. Mazor, "City Center (South) and Tel Iztabba Area; Excavations of the Antiquities Authority Expedition," in *Excavations and Surveys in Israel 11: The Bet She'an Excavation Project (1989-1991)* (Jerusalem, 1993), 33-51, at

36-38; Tsafrir and Foerster, "Urbanism at Scythopolis-Bet Shean in the Fourth to Seventh Centuries," 132, 138.

73 R. Pierobon, "The Italian Activity within the Jerash Archaeological Project, 1982-83. Archaeological Research in the

Sanctuary of Artemis. 2: the Area of the Kilns," in *Jerash Archaeological Project*, vol. 1, 1981-83, ed. F. Zayadine (Amman, 1986), 185-87; J. Schaefer and R. K. Falkner, "An Umayyad Potters' Complex in the North Theatre, Jerash," in *ibid.*, 411-35.



Fig. 24 Rooms flanking the central courtyard of the eastern caravansery complex at Pella, looking southward; additions and rebuilding indicate an extended period of occupation

disused bathhouse at Baysan into a factory with pools and a work area, probably for the manufacture of linen from local flax, while a cloth dyeing plant was uncovered at Tabariyah. Another important industry was glass blowing. A major site of production was al-Raqqah, where technological experimentation in the use of plant ash as flux, perhaps enforced by the increasing shortage of natron from Egypt, was a feature of the eighth and ninth centuries.⁷⁴

As the above material shows—and only a few examples have been presented—recent archaeology at an ever-growing number of early Islamic urban sites has categorically demonstrated an advanced level of economic activity in Syria-Palestine during the eighth century, in which the production and exchange of commodities played a prominent part. Did, however, this economic hyperactivity extend into the countryside? Of this there is little doubt.

In recent years, improvements in our understanding of ceramic horizons in the first Islamic centuries have greatly advanced the

⁷⁴ J. Henderson, "Archaeological and Scientific Evidence for the Production of Early Islamic Glass in al-Raqqah, Syria," *Levant* 31 (1999): 225–40; J. Henderson, S. D. McLoughlin, and D. S. McPhail, "Radical Changes in Islamic Glass

Technology: Evidence for Conservatism and Experimentation with New Glass Recipes from Early and Middle Islamic Raqqa, Syria," *Archaeometry* 46 (2004): 439–68.

recognition of settlement profiles and resource exploitation in the countryside. Regional surveys, where properly formulated, have successfully identified extensive Islamic occupation in the many environmental zones of Syria-Palestine, ranging from the Balikh River valley of north Syria to the dry desert steppe of south Palestine (as noted earlier). However, the picture is not entirely consistent. In certain areas the number and, in some cases, size of sites seem to increase substantially, whereas in other areas a downturn in site occupation seems to have occurred. In very general terms, an increase in the number of occupied sites occurred in river valleys, while there was a loss of settlement level in the more rugged mountainous zones.

Conventionally this settlement shift has been explained as the result of agricultural changes brought about by a “green revolution” following the establishment of an Islamic state that spanned territorially from India to Spain. Since the 1980s, the work of Andrew Watson on agricultural changes brought about by the spread of new crops from the East after Islamic expansion has been generally and sometimes enthusiastically embraced.⁷⁵ However, very recent work on settlement and land exploitation in the middle Euphrates region of Syria has cast significant doubt on the causal connection between the arrival of Islam and the introduction of new agriculture. An archaeobotanical study suggests that many of the so-called “revolutionary” crops such as rice and hard wheat that permitted a more intensive use of the land seem to predate the arrival of Islam.⁷⁶ Rather, two other interrelated causes may have been more instrumental in the growth of the rural economy: the digging of long irrigation canals and the acquisition and foundation of large farm estates owned by members of the ruling Umayyad family. In north Syria, Maslamah b.

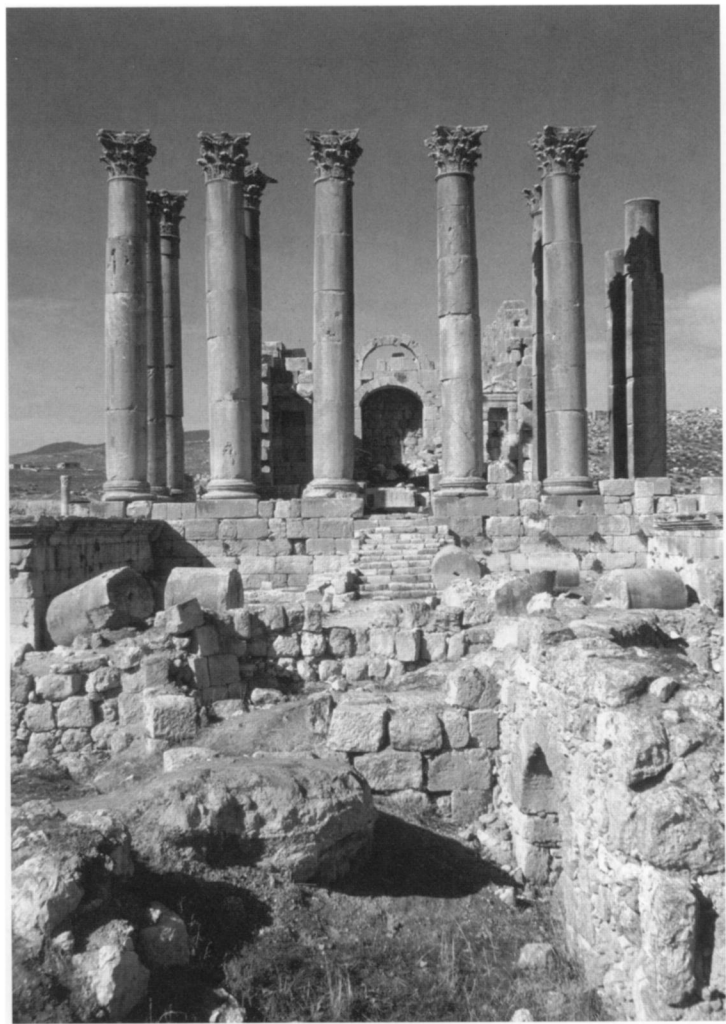


Fig. 25 Potters' workshop at Jerash in the forecourt of the temple of Artemis, with a stone-built, industrial-sized kiln (to right) and adjacent workrooms. Note the thick ash and waste deposits in the center foreground, left of the kiln stoke hole.

75 A. M. Watson, “A Medieval Green Revolution: New Crops and Farming Techniques in the Early Islamic World,” in *The Islamic Middle East, 700–1900: Studies in Economic and Social History*, ed. A. L. Udovitch (Princeton, 1981), 29–58; A. M. Watson,

Agricultural Innovation in the Early Islamic World: The Diffusion of Crops and Farming Techniques, 700–1100 (Cambridge, 1983).

76 D. Samuel, “Archaeobotanical Evidence and Analysis,” in *Peuplement rural et aménagements hydroagricoles dans la*

moyenne vallée de l’Euphrate, fin VIIe–XIXe siècle: Région de Deir ez Zôr-Abû Kemâl, Syrie: Mission Mésopotamie syrienne, archéologie islamique, 1986–1989, ed. S. Berthier (Damascus, 2001), 347–81.

ʿAbd al-Malik, governor between 709 and 719, dug canals sourced from the Balikh and Euphrates rivers to irrigate fields, thereby increasing both agricultural productivity and land values. Likewise, a canal was also dug in the middle Euphrates region, beginning at the Khabur River and extending southward for 50 km. As a result, twenty-six new villages were founded.⁷⁷

Perhaps a similar scenario can be proposed for the Jordan Valley, a hot and water-rich zone lying between 200 and 400 m below sea level. It was not the arrival of new crops, but the agricultural improvements instigated by the Umayyads, that resulted in the spread of settlement on the valley floor, in spite of its oppressive heat in summer. At Jericho and around Tabariyah, new estates were founded including large holdings of the Umayyads (Khirbat Mafjar near Jericho and al-Minyah north of Tiberias, for instance), while numerous small agricultural villages were established between Lake Tiberias and the Dead Sea, many of which were to be continuously occupied for some eight hundred years.⁷⁸ Such new farming opportunities may have drawn farmers from the scarp of the valley on the Jordan side where, geomorphological studies suggest, land degradation caused by over-cropping, erosion, and possibly increasing drought had stripped much of the land of its productive soil.⁷⁹

Along with agriculture, the exploitation of natural resources was expanded in the rural zones of Syria-Palestine. For instance, near Aqabah in the Wadi Arabah, six villages were founded to a common plan, the economies of which were based on industrial activities such as copper smelting, pottery making, and shell working.⁸⁰ Mines and nearby smelting camps, mostly processing copper ore, were also identified, as were agricultural estates to feed the village occupants. The ordered nature of the village layouts and the considerable investment required to develop these industries suggest the involvement of a single group, probably prosperous provincial leaders located in Aqabah.

The rapid growth in and increasing reliability of archaeological data from excavations and surveys in the last three decades present new opportunities to evaluate and characterize settlement profiles

77 S. Berthier, in Berthier, ed., *Peuplement rural et aménagements hydroagricoles*, 164–66, 418–22.

78 A. Walmsley, “Fatimid, Ayyubid and Mamluk Jordan and the Crusader Interlude,” in *The Archaeology of Jordan*, ed. B. MacDonald, R. Adams, and P. Bienkowski (Sheffield, 2001), 515–59, at 525–26, noting the unreliability of past survey work.

79 See J. Bintliff, “Time, Process and Catastrophism in the Study of

Mediterranean Alluvial History: A Review,” *World Archeology* 33, 3, *Ancient Ecodisasters* (2002): 417–35; K. W. Butzer, “Environmental History in the Mediterranean World: Cross-Disciplinary Investigation of Cause-and-Effect for Degradation and Soil Erosion,” *Journal of Archaeological Science* 32, 12 (2005): 1773–800; J. Koder, “Climate Change in the Fifth and Sixth Centuries?,” in *The Sixth Century, End or Beginning?*

ed. P. Allen and E. Jeffreys (Brisbane, 1996), 270–85; also B. Lucke, M. Schmidt, et al., “The Abandonment of the Decapolis Region in Northern Jordan—Forced by Environmental Change?” *Quaternary International* 135, 1 (2005): 65–81, but perhaps overstated to some extent.

80 U. Avner and J. Magness, “Early Islamic Settlement in the Southern Negev,” *BASOR* 310 (1998): 39–57.

and land use in the towns and countryside of Syria-Palestine in the eighth century. Earlier concepts of general urban and rural decline have been replaced by more challenging and considerably more complex questions dealing with continuity and change, in which new causal agents are sought to explain the social transformations of the age based on verifiable and statistically adequate data. Like the seventh, the eighth century was not a time of monotonous decline, but progressive settlement change marked by success as well as failure.

The Economic Basis of Seventh- and Eighth-Century Syria-Palestine

New work over the last thirty years on the archaeology of Syria-Palestine in the later sixth and seventh centuries has significantly questioned the once-accepted view of an economy in decline, seen in part as a contributory factor to the supposed “easy” conquest of the region. Coinage, ceramics, and settlement profiles depict, rather, an economic resilience that successfully weathered the political and military disruptions of the seventh century. The relative soundness of the economy at the end of the seventh century gave crucial support to ‘Abd al-Malik during the succession dispute with Ibn Zubayr, and following its resolution ‘Abd al-Malik’s reforms were to ensure decades of continuing economic prosperity in Syria-Palestine. In the eighth century, a standardized coinage ensured monetary confidence, town-based industries were built up on a major scale to supply regional markets, while improvements to the infrastructure of agriculture—rather than the introduction of new crops—and the exploration of natural resources promoted settlement in the countryside. Over two centuries, the economy had changed, bringing significant shifts in urban and rural settlement patterns, but had not, to any significant extent, failed.

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